E. Engin

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With Which Is Combined

PAPER

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Hear Revised Codes on Paper, Pulp and Board

More Than 200 Representatives of the Two Industries Attend Public Hearing Before Assistant Deputy Administrator David H. Tulley—Cola G. Parker Stresses the Statement that a Substantial Wage Increase is Being Granted and that the Mills Cannot Assume This Burden Unless Assured An Adequate Selling Price

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., July 3, 1934.—Hearing was held last Friday before Assistant Deputy Administrator David H. Tulley in connection with the proposed new paper and pulp code and the new code for the paperboard industry. More than two hundred representatives of the two industries attended the hearings.

The Deputy Administrator was assisted by the following NRA officials; on behalf of the Consumers Board, J. M. Hadley; Industrial Board, G. F. Ashley; Labor Board, John P. Burke and Arthur Sturgis; Legal Division, John I. Robinson; and Research & Planning Division, Max Kassoris.

Captain Cola G. Parker made the main argument in favor of the proposed new code on behalf of the American Paper and Pulp Association.

Proposed Amendments

At the outset of his argument, Captain Parker introduced a number of proposed new amendments to the code as already set forth in the PAPER TRADE JOURNAL. The suggested amendments are as follows:

ARTICLE V, SECTION 7

Eliminate after the words "more than five per cent (5%)" the words "of the total number of employees covered by said Section 3", and substitute the words "of all clerical and office employees."

ARTICLE V, SECTION 8

Insert in Section 8 a provision to permit employment of apprentices and learners at properly adjusted rates during period of apprenticeship.

ARTICLE VI, SECTION 4

Substitute after the word "provision", "of Articles IV, V and VI of this Code."

ARTICLE VII, SECTION 2

Add as a paragraph in the section the following:

"The word 'plant' as used herein shall include any and all mills and/or plants and/or factories and/or shops owned, operated or controlled by a Member wherever the same may be located, and whether or not the product of such incidental process is used at the particular mill or location where the same was produced."

ARTICLE VII, SECTION 4

Add at the end of the first sentence the words "or if the Paper Industry Authority shall find that pertinent information or opportunity to verify the same is not furnished by such Member to the Paper Industry Authority upon its request."

ARTICLE VII, SECTION 7

Substitute the words "minimum price" for the words "lowest reasonable cost" wherever they occur in the Section.

ARTICLE VII, SECTION 8

Add to the end of the Section, the following:

"The Executive Authority of any Division may also require, with respect to all or any of the products of such Division, that the Members thereof shall file with all and any of the price schedules, filed by such Members, such number of samples as the Executive Authority may determine of the products covered by such price schedules. If a standard has been prescribed for any such product and the samples so filed shall exceed in any respect the specifications prescribed in such standard, such price schedule shall be automatically void as to such product. If no standard shall have been prescribed for such products, the offer by any Member under such price schedule of such product exceeding, in quality, the sample of such product filed with such price schedule shall constitute a violation of this Code.

"In case of any dispute as to whether any filed sample exceeds any prescribed standard and/or whether any product sold exceeds in quality any filed sample, the decision of the Executive Authority of the Division shall be controlling unless or until over-ruled by the Paper Industry Authority."

ARTICLE VIII, SECTION 2

Sub-section A (2). Insert the word "grade," after the word "Uniform quantity," at the beginning of the paragraph.

SCHEDULE "D"

Substitute the attached in entirety.

1. All paper valve bags and sacks.
2. All sewn open mouth paper bags and sacks.
3. All open mouth paper bags and sacks constructed in whole or in part of coated or uncoated rope paper, coated

(Continued on page 18)

L. J. Belnap Anticipates Higher Newsprint Prices

President of Consolidated Paper Corp., States That While Consumption Shows Upward Trend, Costs of Production Are Rising—Declares Sales Price Remains So Low That Profits Are Impossible—Industry Suffers Through Competition

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., June 30, 1934.—That costs of newsprint production are increasing, and that there are some indications of a possible increase in price were statements made by L. J. Belnap, president of Consolidated Paper Corporation, Limited, in addressing the shareholders at the second annual general meeting of that organization here. He said in part:

"Newsprint consumption has shown an upward trend during the last few months, but the sales price remains so low that profits are impossible, the present selling price being the lowest in over twenty years.

"Since 1930 the net sales return has dropped $22 per ton, or 40 per cent. The output of Canadian mills in May, 1929, the all-time peak, was approximately the same as May, 1934. The value of the sales in May, 1929, was $13,500,000, compared with $8,000,000 for May of this year, a drop of $5,000,000. In 1933, the Canadian and United States output was nearly 3,000,000 tons, with a value of $122,000,000, delivered at the principal points of consumption. In the year 1924 the output was 130,000 tons less; the sales value, however, delivered at the principal points of consumption was $229,000,000, almost double that of 1933.

"Although the corporation's volume of newsprint for the last fiscal period was practically the same for previous fifteen months fiscal period, the sales value decreased more than $2,000,000, or approximately $7.50 per ton. Costs have been reduced since the inception of the corporation's activities by $7.80 per ton, but owing to cut-throat competition of Canadian mills, the net selling price has declined $12.60 per ton during the same period.

"During the period under review, the operating loss due to lowered selling price, would have been approximately $2,000,000 more, had not the strictest economy, resulting in reduced costs, been practiced.

"Since the inception of the corporation the loss in revenue through reduced selling price has been approximately $5,000,000."

Suffered Through "Jungle Competition"

He charged that the industry in Canada had suffered extensively through "jungle competition," and said there were hazards in the industry which too few had taken cognizance of, particularly in that forest and woods reserves burn, trees blow down and woodlands may be swept by insect pests, all of which resulted in depletion of forest reserves that might require one or two generations of natural growth to replace the depletion.

The reports were passed and retiring directors were re-elected, with J. E. Ward filling the vacancy created by the death of the late F. G. Daniels.

Canada's First Paper Mill

The Historic Sites and Monuments Board of Canada during the week unveiled a monument it has erected at St. Andrews East, Que., as a tribute to the establishment there of the first paper mill in British North America. The bronze plaque affixed to the granite cairn which stands prominently in the town reads as follows: "Historic Sites and Monuments Board of Canada. First paper mill in Canada. The first paper mill in Canada was built at St. Andrews East in 1803-05 by a group of New Englanders and later operated by James Brown, stationer, of Montreal. This was the inception of one of Canada's most important industries." The inscription is repeated in French.

An early advertisement in a Montreal paper states that the mill manufactured "bonnet board, wrapping paper, cannon cartridge paper, royal or demy writing paper, royal or demy printing paper, demy blue printing paper, demy blue blotting paper, foolscap writing paper, and strong Kentish cap."

Newsprint Exports Show Further Increase

The May returns of exports in connection with the pulp and paper industry, just issued by the Bureau of Statistics, shows that the movement of newsprint towards peak volume of export continues. For the month the quantity exported amounted to 4,441,416 cwt., valued at $7,618,467, as against 3,140,619 cwt., valued at $5,319,708 in April, and 3,374,379 cwt., valued at $6,416,141 in May, 1933. Exports of pulp amounted to 1,034,689 cwt., valued at $2,163,636, against 901,765 cwt., valued at $1,093,621 in May, 1933. Total exports of paper and manufactures of paper in May were valued at $8,074,867, as against $6,667,696 in May, 1933.

I. P. Mill at Corinth Busy

[FROM OUR REGULAR CORRESPONDENT]

CORINTH, N. Y., June 30, 1934.—Production was resumed this week at the local branch of the International Paper Company following a shutdown of several days. Virtually all of the machines are running steady with prospects of continuing on present schedules for some time. A huge consignment of pulpwood from Canada arrived here this week over the Barge Canal route which marked the initial shipment by boat. Several thousand tons comprised the entire cargo and other shipments are expected to follow. Large quantities of the Russian product are also being received at the terminal in Albany which it is understood will be conveyed to the various mills of the company in Northern New York.

Roy K. Ferguson Heads St. Regis

Roy K. Ferguson has been elected president of the St. Regis Paper Company to succeed Floyd L. Carlisle, who has become board chairman. W. H. Versfelt has been appointed secretary to succeed Mr. Ferguson, who was vice president and secretary.

Mr. Carlisle has been president of the company since 1916, when he first acquired control of the company. In 1919 the Hanna Paper Company was purchased, and some time later the water-power interests were segregated into the Power Corporation of New York, which was succeeded in turn by the Northeastern Power Corporation, a subsidiary of the Niagara Hudson Power Corporation. St. Regis owns 1,528,166 common shares of the United Corporation.

New Marathon Carton Plant Starts Production

Operation of Machinery Already Installed Begins at Wausau, Wis., With Crew of 35 Workers —Remodeling of Building and Installation of Machinery Only Partially Completed— Capacity of Plant May be Reached In Early Autumn

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., July 2, 1934.—Production has been started by the Marathon Paper Mills Company in its new branch plant at Wausau, Wis., devoted to the manufacture and printing of paper cartons. A crew of 35 persons is employed in operatoin of the machinery thus far installed.

The carton operations were started as soon as machinery could be put into place. Installation is only partially completed, as is the remodeling of the buildings. The company will continue to add equipment so that the capacity of the plant will be reached by early fall, with a crew of approximately 100 persons.

This plant marks another expansion for the Marathon Paper Mills Company, which has its main mills at Rothschild, Wis. The building now taken over was formerly occupied by the Marathon Shoe Company, and was purchased by the Wausau city government and placed at the disposal of the paper company. The building will be deeded to the company at the end of a specified period if certain stipulations as to providing employment are met. The company also has a large carton division at Menasha, Wis.

Straw Board Mill Remodeling

Remodeling of the Mead Paper Corporation's newly acquired straw board mill at Menasha, Wis., has been speeded up by resorting to blasting. Some of the obsolete machinery has been sold to a local wrecking company, and this steel and worn out sections of the building are being razed with dynamite. As soon as the removal has been accomplished, the work of installation of new equipment and revamping of the old will be finished up so the plant can get into production. Many minor improvements are being made to the buildings and they are being repainted. The entire mill will be in first class condition, with the latest production facilities when it starts operating. It formerly was known as the Island Paper Company and the Menasha Paper Mills, Inc., and was purchased by the Mead interests of Chillicothe, Ohio, early this spring.

Funds Acquired for Forest Conservation

Funds acquired under the $20,000,000 allocation from the Emergency Conservation Work funds will be used to add 197,248 acres to the federal forest preserves in Wisconsin. Purchases have been approved by the National Forest Reservation Commission as follows:

Argonne unit, 2,738 acres to cost $6,154.06.
Oconto, 29,765 acres to cost $47,020.26.
Mondeaux, 3,296 acres to cost $6,587.18.
Flambeau, 2,390 acres to cost $3,451.46.
Chequamegon, 157,248 acres to cost $343,465.56.
Moquah, 2,500 acres to cost $4,220.40.

The Chequamegon is the largest purchase unit recommended in any state by the commission, and the allocation for Wisconsin is the largest of any state. C. C. C. camps will develop these lands for planting and fire protection of existing timber.

Suit Against Kimberly-Clark Officials

Taking of testimony has been completed in the suit brought by Mrs. Lois Thom Nichol against F. J. Sensenbrenner, president of the Kimberly-Clark Corporation, Neenah, Wis., in which she seeks to recover $30,000 on the sale of 100 shares of the company's stock to him. The suit has been in progress for more than two weeks in circuit court at Oshkosh, Wis., before Judge A. M. Beglinger. Fifteen questions were given the jury and a verdict had not been reached at this writing. The plaintiff contends information as to the condition of the company and its outlook was withheld, and that stock she sold at $250 a share was in reality worth $550 a share.

Mr. Sensenbrenner, in his testimony, denied that in talking with Edgar R. Thom, brother of the plaintiff, that in 1926 he said anything that could be construed as discouraging regarding the earning prospects of the paper company or its subsidiaries. He said that at the time of his purchase of 100 shares of Kimberly-Clark preferred at $250 a share from Mrs. Nichol November 8, 1926, there was nothing certain about the deal that some months later resulted in the sale of a four-fifteenths interest in the Kotex Company, a subsidiary, to Chicago buyers. He also denied that subsidiaries were formed to divert Kimberly-Clark profits to conceal earnings from the stockholders.

Two motions of Mr. Sensenbrenner's attorneys, one to declare a mistrial because the plaintiff's attorneys fraternized with jurors, and the other to dismiss the jury and let the decision rest with the court, were denied by Judge Beglinger, who ruled that the jury must decide the case. The attorneys arguing for Mr. Sensenbrenner before the jury asked them to consider the defendant's reputation, character and high standing before the nation before finding him guilty of the stock fraud charge of which he now stands accused by Mrs. Lois Nichol, a daughter of the late Peter Thom, Mr. Sensenbrenner's former business partner and friend. The jurors were also told that Mr. Sensenbrenner was more than fair when he paid Mrs. Nichol $250 a share for her stock. Statistics were presented to dispute the claim of the plaintiff that the stock had a real value of $550 a share.

Pulpwood for Consolidated

Approximately 9,000 cords of pulpwood arrived last week at Ashland, Wis., for the Consolidated Water Power and Paper Company, to be reloaded for rail shipment. This was the total of the first of six rafts towed across Lake Superior by the company's tug *Butterfield,* of the Newaygo line. The raft was deposited in the boom yard of the new Superior Spruce Corporation, instead of the Consolidated yard. The new fast, high-powered electric hoist will be used for the reloading, using about 25 men. The wood is being rafted from Port Arthur and Pigeon River, Canada.

Paper Mill Official Weds

Leigh S. Wolfe, an executive of the Kimberly-Clark Corporation, of Appleton, Wis., and Miss Ruth Saecker, also of Appleton, were married at that city last week. They are on a wedding trip in northern Wisconsin.

Another wedding of the week was that of Frank Sharpless and Miss Helen Caspersen, both of Neenah, Wis. Mr. Sharpless is an electrician for the Kimberly-Clark Corporation.

Chicago Paper Market Conditions Improving

Fine Paper Division Continues Quiet But Firm—Position of Bond and Cover Papers Practically Unchanged—Bond and Ledger Papers Moderately Active—Newsprint Paper Situation Gradually Clearing—Kraft Wrapping Paper Quotations Steady

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., July 2, 1934.—The many meetings held in Chicago during the week drew a great deal of attention. Each of the sessions were also to have genuine effect on future market development, though the NRA hearing on the revised code, held June 29, was regarded as the real signal for future trends. Normal business improvement, however, was expected, as local market prognosticators found the summer dullness comparatively less than in former "depression" years, with the exception of the abnormal upbound registered the summer of 1933.

Specific markets offered little for comment, demand being rather quiet but markets firm as to the price situation. Fine papers were reported to have marked time during the six day period with prices showing a pleasant degree of firmness. Book and cover papers, completing previous adjustments, found much of interest in the meetings held this week, though no effect on the actual markets was noted. Bonds and ledgers were in comparatively good demand. Newsprint demand was better, as the general tone of the retail and wholesale trade over the country reflected improved advertising for the newspapers. The newsprint market, however, is still being carefully watched by other markets, notably the ground wood, which moved in a narrow range during the week. Board was firm and continued to feel slight improvement from the wider range of business betterment. Krafts were reported in good shape locally as to the price situation. Volume was rather low. The waste paper market moved in a narrow range.

Important Association Meetings Held

At least ten meetings of real importance to the paper industry were held in Chicago during the past week. Each of them brought representatives from all parts of the country in sufficient numbers to make Chicago the focal point of interest for the paper trade, at least during the five day period. The meetings were held at the Drake and Blackstone Hotels, always favorites with the paper trade. On Monday, June 25, the Book Paper Manufacturers Association held meetings of the Executive Authority and of the Grading Committee at the Drake in the morning, and of the Converting Committee and Seconds and Job Lots Committee in the afternoon. The Mimeograph Grading Committee of the Writing Paper Manufacturers Association held a morning session at the Blackstone the same day.

On Tuesday the Book Paper Association held a general meeting in the morning at the Drake Hotel while the Converting, Envelope and Offset Committees held a joint session with the Papeterie Committee of the Writing Paper Manufacturers Association in the afternoon. The Writing Paper Manufacturers Association held an Executive Authority meeting at the Blackstone, June 26, while the Sulphite Manifold Grading Committee and the Sulphite Bond Grading Committee of the same association held meetings in both the morning and afternoon. On June 27 another general session of the Book Paper Manufacturers Association was held at the Drake, while the Writing Paper Manufacturers Association had its general meeting at the Blackstone, along with sessions of the Rag Content and Sulphite Bond groups. An evening meeting of the Executive Authority of the Cover Paper Manufacturers Association was another feature of the day.

On June 28 the Cover Paper Manufacturers Association held a general meeting at the Blackstone, while the Writing Paper Manufacturers Association held meetings of its Sulphite Manifold group and Rag Content Manifold group during the morning of the same day.

The Salesmen's Association of the Paper Industry, Middle West Division, is marking time with its important committee on trade customs and fair trade practices until after the NRA hearings on June 29, according to Harold Knott, chairman of this well organized committee. Meanwhile, in addition to its regular business program, the association is planning its third golf outing of the season for July 20 at the Bob-O-Link Country Club. According to R. R. Cook, golf chairman, a record attendance is looked for.

Second-Class Mail Petition

Some facts are forthcoming relative to the presentation of the petition for second class mail which was commented on in these columns two weeks ago. The petition, presented to Congress by W. J. Miskella, of the Paper Foundation, is Uncle Sam Bond, 8½ inches wide and over one mile in length—the longest ever written on one continuous sheet of paper. The persons signing the petition came from all walks of life and all parts of the country as well as outside the country—the first international petition ever presented to Congress. If cut into ordinary letter size sheets the paper in the petition would make over 5750 sheets 8½ by 11 in size. The petition is owned by the Hawthorne Paper Company, of Kalamazoo, Mich., makers of Uncle Sam Bond. The petition, with the above facts presented, is now a central part of the Paper Foundation exhibit at A Century of Progress Exposition along Chicago's lake front.

News of the Trade

J. H. Stone & Sons, 1528 Armitage Avenue, Chicago, recently leased a one story building at 1815-25 West 47th street; modern new quarters with a floor area of 30,000 square feet and well equipped with railroad facilities suitable for the further development of the firm which specializes in the handling of a line of wrapping papers.

Some improvement in certain grades of paper, brought about through increased direct mail, is expected after July 1, when lower rates on second class mail are to go into effect. The old rate of one and one-half cents an ounce on reading matter will become effective at that time, applying to newspapers and magazines of second class characterization as well as to other direct mail items.

The June issue of the *Friendly Adventurer*, published monthly by Bermingham & Prosser, utilizes the front cover to announce the sixth annual Peacock Calendar of Inspiration which each month presents a thrilling picture of a sport or outdoor activity. In with all the splendid messages featured by the house organ is some excellent discussion of Peacock Folding Enamel. The inside stock of the *Friendly Adventurer* is printed on Ivory High Finish Peacock and the cover on Ivory High Finish Peacock.

Demand for Paper Moderately Active in Boston

Prevailing Summer Dullness, However, Promises to be Not More Than Normal—Volume of Kraft Wrapping Paper Sales Fairly Heavy—Summer Specialties Moving Into Consumption at Steady Pace—Paper Stock Market Continues Listless

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., July 2, 1934 — Business with paper wholesalers was rather good last week for the time of year, although the seasonal dullness, which promises to be not more than normal, prevailed. In fine paper lines, the month as a whole was good, although in the last four or five days the volume of sales lessened somewhat. A fairly favorable amount of business was transacted in wrapping paper.

The summer trade in paper specialties used by seashore and country resorts and roadside stands is opening well, in fact, is much better than for the last two or three years, indicating a good increase in this class of business. Dealers in fancy paper plates, drinking cups, paper napkins, etc., are pleased with the demand that has developed for these articles. The inquiry for Christmas items, such as tissue rolls and fancy lines, seems to be coming in a little earlier than it did the last two years, when buyers did not care to discuss them in the summer.

There was a very light mill demand for paper stock. Dealers have had difficulty in procuring orders to relieve their congested warehouses. Some have arrived at the point where they are unable to store any more stock. With most paper and board mills shut down the first three days of the present week and some possibly the entire week, the outlook for sales is not favorable. Under old papers, No. 1 kraft is easier, having declined to .95 @ 1.05 from a former range of 1.00 @ 1.10. There is not such a very large accumulation of old newspapers, but mills are not buying, and the price has been marked down to .30 @ .35 from .35 @ .40. In bagging, mills have cut the price of mixed strings to .30 from .40. Several declines have taken place in new domestic rags, in shirt cuttings, new light prints moving down to .01¾ @ .02, new white No. 1 to .06 @ .06½, new white No. 2 to .04 @ .04½ from .04½ @ .05, and new unbleached to .06½ @ .07 from .07 @ .07¼. Roofing stock moved fairly well, but at lower figures, the No. 1 grade declining to .80 @ .85 from .90 @ .95, No. 2 to .65 @ .70 from .70 @ .75, and No. 3 to .55 @ .60 from .60 @ .65.

News of the Trade

J. Harry Ellis, merchandise manager of the wrapping paper department of Carter, Rice & Co., Corp., celebrated today the fiftieth anniversary of his connection with the company. Both the company and his fellow workers presented him with a remembrance. Mr. Ellis came to the concern as entry clerk, July 1, 1884. He continued in that work for about ten years and then became engaged in the wrapping paper department. He was employed inside the office for a while, later outside, selling wrapping papers, gradually coming to handle the whole line of fine and coarse papers. In all, he was on the road 33 years, covering parts of Maine, New Hampshire and Massachusetts. For the last five years, since the retirement of H. S. Brown, Mr. Ellis has had an inside position as merchandise manager of the wrapping paper department. He has the best wishes of all.

Ted Pell, of the Brown Company, held a sales meeting at the office of John Carter & Co., Inc., Saturday morning, for the purpose of presenting the new improved Nibroc Bond and Wytek (bond finish).

Samuel Cabot, head of Samuel Cabot, Inc., manufacturers of building papers, has been elected a member of the Board of Overseers of Harvard College.

Gordon E. Emerson, treasurer of E. Butterworth & Co., Inc., called on the trade in New York City last week.

Charles I. Foster, manager of the New England office of the American Writing Paper Company, accompanied by his wife and family, left Saturday for a week's cruise along the coast of Maine in his brother's schooner.

T. Stewart Foster, president of the Foster Paper Company, Utica, N. Y., visited the office of the New England representative of that concern, E. J. Smith, at 310 Congress street; and Charles E. Mack, of the Springfield Glazed Paper Company, Springfield, Mass., called on the trade last week.

The Waltham Bag and Paper Company, Waltham, Mass., is to build a one-story metal storehouse, 30 x 600 feet, on Cooper lane, Waltham, at a cost of $2,500.

The Great Eastern Packing and Paper Corporation has rented from the Burkhardt Corporation, the one-story-and-basement building on Halleck street, Roxbury, covering about 8,000 feet of land.

Brown Co. Sells Receivables to Iselin

The Brown Company, of Portland, Me., large manufacturers of paper and specialties, has entered into an association with the factoring organization of William Iselin & Co., Inc., New York, according to the *Boston News Bureau*. As an immediate result of this arrangement, the Brown Company has sold to Iselin their accounts receivable, the proceeds of which have been used in payment of bank loans.

In future Iselin will discount the Brown Company receivables and have general charge of its credits and collections. This change, however, will have no effect on the Brown Company's relations with any of its customers. Although bills will be payable to William Iselin & Co., Inc., payments will still be sent to the Brown office in Portland where all credit and collection matters will be handled as in the past.

Link-Belt Speed Reducer Catalog

A new 32-page illustrated catalogue No. 1415, with horsepower and other engineering data, dimension diagrams, etc., has recently been issued by Link-Belt Company, Philadelphia, Chicago, San Francisco, from whom a copy may be obtained by request made on business letterhead. The book covers single, double and triple reduction units of herringbone gear type; also a full line of flexible couplings.

A New Fuel for Pump Mills

A new fuel of finely cut-up mill edgings and trimmings will shortly be manufactured in Nanaimo, B. C., for use in pulp mills at Powell River. An electrically-driven saw mill is now under construction at Nanaimo for this purpose. The scraps will be dumped into a hog machine, ground into shaving-like spirals, loaded on specially-built scows and towed to the pulp mills.

Ontario Mills Operating Closer to Capacity

Demand for Various Standard Grades of Fine Paper Well Sustained—Coarse Wrapping Paper Manufacturers Experience Better Request—Many Plants Operating at Approximately Five Days Per Week—Converting Trade Shows Improvement

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., July 1, 1934.—The second quarter of the current year's business in pulp and paper circles is closed and has left a fairly good record in both mill and wholesale departments of the industry. While it is admitted that paper distributors are running into a seasonably quiet period, most of the paper houses report better business in June than came their way during the previous month and the trade as a whole did a better business in the second quarter than in the earlier months of the year. In respect of the future there is a decidedly optimistic feeling and the outlook for still better business in the third quarter just entered upon is considered distinctly encouraging.

There is also a satisfactory degree of activity in paper manufacturing circles with respect to both fine and coarse papers. In the fine paper field demand is keeping up well and practically all of the mills are operating closer to capacity than they have been doing for some months. One feature of the fine paper section is that a better demand is developing in paper converting lines. The converting trade has been quiet for some months but recently it has improved somewhat and it is shown by a much better call on the mill for envelope papers and general stationery lines of paper. There is also a good call for various grades of paper from the publishing and catalog trades and there is said to be some good business in these lines likely to be released shortly.

In the coarse paper field there has been some improvement of late, with consumers slightly enlarging their commitments. Many of the mills are operating about five days a week, with the bag mills at about the same ratio. None of the consuming firms are stocking up as yet, however, and the car load order is still pretty conspicuous by its absence in the trade. Both the coarse paper market and the paper novelty sections of the industry expect to derive considerable benefit in the way of consumption and sale of these lines when the Canadian National Exhibition opens its gates for a two-weeks run at the end of August.

Safety Work in Niagara District

That all the paper mills in the Niagara district are strictly adhering to the rules regulating safety matters was the statement of D. B. Chant, secretary of the Ontario Pulp and Paper Makers' Safety Association, on his return from a visit of inspection to the plants this week. Mr. Chant visited the plants of the Ontario Paper Company, Provincial Paper, Garden City and Interlake Tissue Mills and found everything in excellent shape, with everything well guarded and the plants kept neat, clean and orderly with respect to accident prevention. "The house keeping of all the plants in the Niagara district is excellent in every respect," said Mr. Chant. The secretary-engineer expects to visit the mills in Northern Ontario some time during the summer months.

Greater Activity in N. B. Paper Circles

The pulp and paper mills of New Brunswick are operating to a substantially larger extent today than a year ago, according to word from that province. The reopening of the St. George Pulp Mill has been of great value to the people of that community, while the operation of the Port Royal Pulp and Paper Company's mill at Fairville has provided badly needed employment both in the mills and woods. New Brunswick International Paper Company, operating a large pulp and newsprint mill at Dalhousie, has been more active of late. Another large operator in the province, Fraser Companies, have managed to keep their pulp mill at Restigouche operating at capacity, while the cut of sawn lumber is substantially greater than a year ago. The unmanufactured pulpwood exported from New Brunswick in 1933 amounted to 104,280 cords, and increase of 11 per cent over the previous year. Of this amount approximately 73,000 cords were exported by water and the balance by rail. The total amount of pulpwood manufactured in New Brunswick or exported in 1933 totalled 570,590 cords, an increase of 97,004 cords, or 20 per cent over the previous twelve months. During the 1932-33 logging season 104,333 cords of pulpwood were cut on Crown lands.

Papermakers Vote for Strike

Employees of the Spruce Falls Power and Paper Company at Kapuskasing, Ont., met on June 27 and voted 86 per cent in favor of a strike, although the paper company, following the lead of a number of American mills, had granted a 7½ per cent wage increase. The men are seeking a trade union agreement with the company and are resorting to strike only after several refusals by mill officials.

Pulpwood Cutting Is Increased

Timber cutting in the Thunder Bay District during the past winter showed a marked increase compared with previous seasons, according to a report just issue by F. E. Rowe, Crown Timber Agent at Port Arthur. Pulpwood showed an increase of 281,379 cords. The cut for the past season was 382,271 cords, compared with 100,892 last year. Sawlogs totalled 198,793, against 75,572 the previous season.

Major Smith Joins Smith Chemical Co.

The Smith Chemical and Color Company, Inc., now located at 55 John street (foot of Jay street), Brooklyn, New York, announces a notable addition to its sales and executive forces in the person of J. Robert Smith.

Mr. Smith has had a long and varied experience in the importing and marketing of dry colors, pigment fillers and chemicals. He is a graduate of Cornell University and former faculty member of the University of Wisconsin. After serving for a time as Field Representative of the United States Department of Agriculture, Mr. Smith saw service during the World War in the United States, Canada and France as Captain in the Quartermaster Corps, Subsistence Division.

He now holds the rank of Major in the Army Reserve Corps of the United States. Mr. Smith is married, has two sons and resides in West Hempstead, Long Island. He is a 32nd degree Mason. He will represent the Smith Chemical and Color Company in the Eastern and Southern states."

Philadelphia Paper Market Continues Quiet

Demand for Practically All Standard Grades of Fine and Coarse Paper Listless, Due Mainly to Hot Weather and Midsummer Holidays—More Lively Trading Anticipated With Passing of Independence Day—Collection of Paper Stock Curtailed

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., July 2, 1934—Reports from all divisions of the paper industry denote that quietude prevails, however, it is the consensus of opinion among those in the trade here that with the passing of the Fourth of July a betterment will be experienced.

Waste paper dealers likewise are hopeful that improvement will be experienced in their market now that the month of July is here. It will be remembered that an immense betterment was enjoyed in this branch of the trade just a year ago this very month, and as a result of this, a profit was enjoyed for the first time in several years.

Meanwhile, the waste paper trade in this area is striving to exercise some degree of control on the collection and production of low grades of old paper, with a view to effecting improvement in the market price level.

Association Activities

Mention has been made from time to time in these columns of a Directory collated by J. R. Howarth, of the Howarth Paper Company, in collaboration with the members of the Philadelphia Paper and Cordage Association, Inc., and to date it is almost one hundred per cent complete. This Directory consists of compactly bound letterheads of the various members of the association, which set forth their products in a very clear and concise manner.

The Administrative Code Authority met during the week at the headquarters of the National Paper Box Manufacturers' Association, in the Liberty Trust Building, Broad and Arch streets, and announcement is made that they are proceeding with cost provisions, as outlined by it, and they confidently expect to have them permanently approved. Their next scheduled meeting will take place on Tuesday, July 17.

At the headquarters of the Philadelphia Paper Trade Association, in the Drexel Building, it was learned that Frank Dubin, president of Dubin Paper Company, and Thomas Ashworth, of the D. L. Ward Company, have been appointed to the Finance Committee of the Philadelphia Trading Area; also that Edward A. Keller, vice-president and general manager of Garrett-Buchanan Company, has been appointed to the Administrative Committee of the Area Sub-Committee, to fill the vacancy caused by the resignation of Allen E. White, of Whiting-Paterson Company. The regularly scheduled meeting of this committee was held this afternoon, with William S. Wilcox presiding. It was also stated that the open price reporting plan on tissues will become effective the early part of next week, contingent on the number of replies received up to that time.

News of the Trade

The J. L. N. Smythe Company, of 30-32-34 South Sixth street, announce the election of William C. Melcher, Jr., as vice-president and member of its Board of Directors.

Employees of the J. R. Howarth Paper Company were the guests of Mr. Howarth for the week end at Atlantic City. The trip was made by automobile from Philadelphia, leaving the Howarth establishment at 8th and Sansom streets 9 A. M. Saturday, and arriving back in Philadelphia at 9 P. M. Sunday.

All those who participated in this outing declared they had the fullest measure of enjoyment, with a few cases of sunburn thrown in, which at this writing are anything but mute evidence of the gala occasion.

The J. R. Howarth Company has added to its already extensive line Trojan ledger and Trojan bond, products of the American Writing Paper Company, of Holyoke, Mass.

At the Dennison headquarters, there is on display in the form of six miniature volumes, designated as Handy Book Shelf for Home or Office, containing gummed reinforcements, gummed labels, paper clips, transparent mending tape, index tabs and thumb tacks. A new and unique idea in accessories are paper dress shields for ladies; these are processed so that they are waterproof and odorless. And for those who like to sip their beverages, there are boxes containing one hundred glassips. These are a glassine product, and it is contended have a lot more endurance than the ordinary straws.

In another department of this store of stores is a gaily colored array of covering for table cloths, draperies and what not, known as laminated Cellophane, which besides being very useful, is highly decorative. From one of their attractive show cases, Miss Ainsworth, of the Dennison staff, brought forth an evening wrap made of Cellophane, which may be had in all colors. It is made on an airy-fairy foundation, which, however, is substantial, and bids fair to become very popular with the fair sex.

Albert W. Luhrs Addresses Paper Salesmen

The regular weekly luncheon and meeting of the Eastern Division of the Salesmen's Association of the Paper Industry was held in the Tavern Room of the Hotel Commodore, New York, on Monday last.

Albert W. Luhrs, of the Container Testing Laboratories, was the guest speaker. He gave an exceptionally interesting address in which he described the results of a recent survey which he made of conditions in Europe.

Mr. Luhrs and his staff were successful in establishing paper board container industries in the principal countries of Europe with the result that no less than forty mills are now using kraft pulp to manufacture containers.

At the close of his address Mr. Luhrs was accorded a rising vote of thanks for his informative talk and the consensus of opinion was that the association had been very fortunate in obtaining a speaker of Mr. Luhrs' calibre.

Fox River Has Five New York Outlets

The addition of several new distributors in New York City for Fox River rag content bonds and ledgers has caused some confusion within the trade.

The original distributor, Henry Lindenmeyr & Sons, will continue to market New Era Bond, Old Badger Bond and Old Badger Ledger, made by the Fox River Paper Company, Appleton, Wis. In addition, Saxon Paper Products, Inc., and Alling & Cory will handle the full line. George W. Millar will continue to distribute New Era Bond, having recently added Right-Of-Way Bond.

Manhattan Card and Paper Company will continue to handle Wall Street Bond.

HEAR REVISED CODES ON PAPER, PULP AND BOARD

(Continued from page 11)

or uncoated paper made from a combination of kraft and/or rope and/or jute pulp, or coated kraft paper.

4. All open mouth paper bags and sacks which are constructed of three or more walls and which have a sack surface area of more than 850 sq. in.

5. All open mouth paper bags and sacks constructed in whole or in part of white kraft paper, when manufactured for use in packaging grain flours, cornmeal, feeds, gypsum, lime, plaster, cement and all other rock products, fertilizer, pigments, dry colors, clay, talc, chemical products, sand, metallic ores, graphite, slag, rosin size, sulphur or salt (see note).

6. All open mouth paper bags and sacks when manufactured for use in packaging grain flours, cornmeal, feeds, or carbon black (see note).

7. All open mouth paper bags and sacks constructed of one or two walls which have a sack surface area of more than 850 sq. in., when manufactured for use in packaging gypsum, lime, plaster, cement and all other rock products, fertilizer, pigments, dry colors, clay, talc, chemical products, sand, metallic ores, graphite, slag, rosin size, sulphur or salt (see note).

NOTE: Bags and sacks classified in Paragraphs 5, 6 and 7 above shall be considered "manufactured for use" in packaging the products named when such sacks are (1) printed by the manufacturer thereof for use by, or (2) sold (plain or printed) directly by the manufacturer thereof, or his agent, to the manufacturer, processor, producer, packer or distributor of any of the products named for use as containers for any of said products in the initial package shipment or distribution thereof.

Statement by Captain Parker

Captain Parker made the following statement for the industry:

We understand from the announcement that the records of all our prior hearings on the existing code are incorporated by reference in this hearing. Since Article XI, Section 2 of the Revised Code deals with the so-called "mill purchase" plan, we also request that the data submitted in support of that proposal, when it was heard in respect of the proposed agreement in the paperboard industry, be also incorporated by reference. Inasmuch as Article XI also covers voluntary agreements we point out that if conference develops its desirability, we reserve the right to amend that Article as to the form of production control which it proposes, as further study warrants.

In view of the record thus made, it seems quite necessary to refer again to the ramifications of this industry, its size, volume, etc. I would stress, however, certain points; the variety of its products and the competitive situation which this produces; and, coincidentally, the fundamental importance of this industry in the American industrial system.

The industry is now divided into 24 separate divisions. Each covers a variety of grades with many products generally in each grade. The size of the division varies, but there is an almost infinite variety of overlaps or conflicts between grades, between companies and between divisions, all of which merely intensifies competition. Consider the position of a single company which states that it manufactures four thousand different items of which, to enable it to serve its outlets, it stocks almost three thousand. By item, of course, it means different sizes, weights, finishes, color or grade of various papers and paper products. Necessarily, it belongs to several different divisions and it must meet different species of competition in its different fields.

This diversity of products, outlets and conditions has an important bearing on our proposals. In fact I believe it is safe to say that the diversity within this industry is almost as great as that between many other entirely separate industries. Certainly as much as the diversity between steel and concrete, or between textiles and automobiles.

With all this diversity of product, of interest, of location, relative and absolute size, etc., complete unanimity of opinion is impossible. When, therefore, there is found a common meeting ground, even when it is not accepted *in toto* by all, it seems to us that an expression of views thus supported must be given not only sympathetic consideration but also that only compelling reasons of completely demonstrated truth would in any way justify either the rejection or substantial limitation of the proposals.

And with this thought should be borne in mind the importance of this industry to our entire economic life. Other countries are adequately equipped to produce some few paper products. No other country is so adequately equipped in all varieties of this industry's products as our own. When the normal man casually thinks of paper he thinks of the newspaper or a magazine, or of his personal stationery, or the wrapping around the bundle which he brought home. These are important uses but they are only four out of literally thousands. The fact is that no other industry, organized as we are today, could operate for any substantial length of time without a supply of paper. They may curtail their uses of paper from time to time but they cannot function without paper. The importance of this industry to the welfare of America transcends its size in terms of dollars, whether of investment or of sales, or in terms of number of employees, or any other fixed unit of comparison between industries. Hence its welfare is one of the most important considerations in this hearing.

This industry now has a General Code under which it has been operating since November 27, 1933, and some 22 skeleton subordinate codes for the separate divisions. Why then this proposal for a Revised General Code to supplant them? A brief statement of past events will answer.

The nucleus, perhaps not recognizable but still a nucleus, of a code or codes for this industry was first proposed within a few days, almost a few hours, after the N.I.R.A. became a law. The first proposed codes for the Industry were filed within six weeks thereafter. For weeks there were constant meetings of divisions and of the industry in an endeavor to arrive at a code acceptable to the Administration, but it was practically five months before the industry received its code. The point, however, is that this industry, not perhaps without misgivings here and there, yet as a whole honestly and fairly embraced the opportunity to join hands with the Administration in an effort to rehabilitate industry. That *was* its policy and that *is* its policy. I must, however, recite further facts.

All competition requires rules or it ceases to be competition and becomes blind, ruthless, destructive warfare. No *game* exists without rules. Even warfare has certain rules prescribed under international law.

Our President, when N.I.R.A. was first proposed, and again when he signed the existing statute, stressed this

principle and stated that industry now has its chance at self-government, its opportunity to establish the rules of the game, that not only those willing to abide thereby, but also those unwilling to do so, should observe fair play. True, there were certain requirements relating to wages and hours, prohibition of monopoly and suppression of small enterprises, but subject to such requirements self-government was assured to industry. This industry welcomed its chance for cooperation with the Administration to that end. It believed in and relied on the repeated promises of self-government. What happened?

The codes as prepared contain either trade customs or trade practice proposals, or methods for prescribing them, in order to raise competition from warfare to a fair plane. These were an essential to self-government. Yet, either because of a complete misconception of the complicated situation of the industry, or of the proposals, the industry was told that to secure a code promptly such proposals must be eliminated; and that immediately after the code was approved these proposals could be taken up and would receive prompt consideration and, if justified, would be approved.

The industry acceded to this view. The existing code as approved provided only for subsequent submission of trade customs and practices and a procedure for other amendments. Trade Customs and trade practices were filed; other proposals made dealing with machine shifting and prohibition against new capacity. Hearings were had and the record is here. The same procedure followed; meetings, revision of proposals, etc.

At this point the NRA called a general meeting of all code authorities; just at the time when redrafting of proposals was taking shape and some of that long promised self-government so vital to this industry was in sight. Although the records then showed that this industry was employing more men than ever before, and paying generally higher wages than in 1929, the proposal was made anew, increase wages and shorten hours.

This suggestion the industry has considered—carefully, even prayerfully, for it wished to maintain its record of cooperation with the Administration. Its answer to that suggestion is before you as the proposed Revised General Code. That answer is presented *as a whole;* as one entire document and not as an amendment or series of amendments to the existing General and Subordinate Codes.

I regret to take so much time with this recital but we deem it essential to a statement of the position and policy of this industry. And so I repeat, the document is submitted as a whole and the proposals we believe should be considered likewise—for without these powers vested in the industry (limited as we believe they are) it is our belief that the contribution offered to your program of higher wages cannot be met.

While this revision is a complete revision, the proposals can be reduced to three principal categories, all of which are within the purview of the hearings already held and are as follows:

1. *Labor.* A substantial increase in wages is proposed. This involves not only an increase in the minimum rates in each section, but also the elimination of the 90 per cent clause. This proposal is not made because of prosperity, but principally with the desire to support the Administration. The burden cannot be assumed by the industry unless it is assured of market return and protection under

2. Its marketing, trade customs and trade practice proposals, and

3. Its proposed machine limitations and procedure for voluntary agreements.

In addition to these three points, there is a re-grouping of sections from the existing code, clarifying language throughout the revision, and simplification and revision of the provisions relating to hours of labor, largely based on the requests of the employees themselves; but in general the three points that I have mentioned are the important revisions and, as stated, there have already been hearings held thereon. It is the position of this industry that these three points go hand in hand.

The record of this industry in its employee relations, we believe, is exceptional in American industry. The industry now, as always, desires to do the utmost possible for its employees; but that it cannot pay a bill of increased labor costs without an adequate selling price for its products was once more demonstrated by this week's news columns. Just this week one of the biggest units in one division was compelled, because it could not meet its charges, to file a petition for relief under the bankruptcy act. Unless the Administration will join with the industry in making it possible to secure an adequate price for what it sells, that action is merely the forerunner of many others. Without such aid which the industry hopes for under its proposals, not only is an increased wage impossible but many units will be unable to continue at existing code rates. Notwithstanding that such a fate stares it in the face, the industry, proud of its record of cooperation (and with many members unable individually to support this action) as a whole, proposes this increase as a part of this program.

But in doing so it wishes to make clear that this is not a separate or a separable proposal. It is a part of a whole which cannot stand alone. We have no doubt that, as was the case with the trade customs and trade practices as originally filed, this will meet with some opposition. We believe, however, that in the main such an opposition is the result of misconception and misunderstanding of the situation which faces the industry. We have yet to hear an authoritative statement that it is the policy of this Administration that this industry must continue blind competition without the power to establish the rules of the game.

I have dealt at some length with the ramifications of this industry because I think it is safe to say that there is no other industry which exceeds the paper industry in furnishing a complete cross-section of our entire industrial life. I repeat, therefore, that when with practical unanimity it proposes marketing practices, a method of applying uniform rules of competition and a protection against further demoralizing new capacity, which all believe is a minimum protection to be sought, only compelling reasons of completely demonstrated truth would justify their rejection. The industry's marketing, trade customs, machine limitation and other proposals, therefore, are an essential element of its proposal for an increase in its wage bill.

The industry is not indissolubly wedded to language or to form, but as to substance it has reached the end of its tether. Unless a fair price is obtainable for its products many of its members must succumb; and such a rate will not benefit this program. If the Industry is to survive and to continue its contribution to the Administration program, the Revised Code, substantially as drafted, must be approved, that the Industry may embark on that career of self-government so frequently promised, yet so long withheld.

Statement by J. M. Hadley

J. M. Hadley, representing the consumers board at the hearing at this point made the following statement:

The provisions of the revised code of fair competition for the Paper and Pulp Industry proposed by the American Paper and Pulp Association presents a number of problems of policy and practical procedure which should be recognized and considered.

From the standpoint of the individual members of the industry and for the industry as a whole, it is important to be flexible in market price and selling procedure, and thus be sensitive to the buying pulse of the consumer, and to be able to quickly take advantage of any changes needed to stimulate sales and keep production at an economic level.

With unfair competition outlawed there is a market in which the free forces of competition converge to maintain a flexible equilibrium between the interests of the parties to the industry. On the market, buyer competes with buyer to secure the goods and services he desires, and the seller with seller to dispose of the goods and services which he possesses. If a consumer would pay too little, the demand of his fellow consumers sends the price up. If the producer would exact too much, the desire of his fellow producers send the price down. Under this system bargaining is erected into an institution. A contract is made every time goods pass by purchase from producer to consumer. At law, the two parties have equal power in making the terms of the contract, and no bargain becomes a contract without a meeting of the minds. As it works out, and as you all know, in actual practice in the modern world of merchandising, the seller frequently sets the prices and determines the conditions of sale. But, under open competition, the privilege of the buyer to take it or leave it is no empty right; for if the price is too high, or the conditions of sale to be met too exacting, the buyer will shift his custom to another, seek some substitute, or do without. The question arises as to what extent this all negative, but far from empty, right of the consumer, is being exercised in the Paper Industry.

Prior to this hearing, figures of production and sales by the industry have not been obtainable. Therefore our Board has been compelled to base its opinions upon the very limited data obtainable, the complaints directly received by it, as well as past contacts with the industry. Certainly every contemplated revision of the revised code which tends to straight-jacket pricing and selling procedure of this industry militate against the industry at all times, when the buyer is forced to resort to this negative right to which we have referred.

Out of a year of operation and many months' experience with codes in which various forms of cost protection, price filing and accounting provisions were tried, the NRA has now crystalized definite policies regarding these subjects. They represent the result of intensive study by the Advisory Boards and the Legal and Research and Planning Divisions, bearing in mind the fact that only through trial and error could the Administration have developed the most workable and fundamentally sound procedure for meeting questions. Direct reference to these will be made as we take up particular portions of this proposed code.

Article III—Administration—Section 2 (c) to Section 4 provides for the Code Authority budget. This is not in accord with the present policy of the Administration and therefore this Board recommends the deletion of these sections and the adoption of the following amendment:

1. It being found necessary in order to support the administration of this code and to maintain the standards of fair competition established hereunder and to effectuate the policy of the Act, the Code Authority is authorized:

(a) To incur such reasonable obligations as are necessary and proper for the foregoing purposes, and to meet such obligations out of funds which may be raised as hereinafter provided and which shall be help in trust for the purposes of the code;

(b) To submit to the Administrator for his approval, subject to such notice and opportunity to be heard as he may deem necessary (1) an itemized budget of its estimated expenses for the foregoing purposes, and (2) an equitable basis upon which the funds necessary to support such budget shall be contributed by members of the industry.

(c) After such budget and basis of contribution have been approved by the Administrator, to determine and obtain equitable contribution as above set forth by all members of the industry, and to that end, if necessary, to institute legal proceedings therefor in its own name.

2. Each member of the industry shall pay his or its equitable contribution to the expenses of the maintenance of the Code Authority, determined as hereinabove provided, and subject to rules and regulations pertaining thereto issued by the Administrator. Only members of the industry complying with the code and contributing to the expenses of its administration as hereinabove provided, shall be entitled to participate in the selection of members of the Code Authority or to receive the benefits of any of its voluntary activities or to make use of any emblem or insignia of the National Recovery Administration.

3. The Code Authority shall neither incur nor pay any obligation in excess of the amount thereof as estimated in its approved budget, except upon approval of the Administrator; and no subsequent budget shall contain any deficiency item for expenditures in excess of prior budget estimates except those which the Administrator shall have so approved.

Article VII—Accounting—Selling—Section 1 of this Article provides for a uniform accounting and cost finding method. This provision is not in accord with present administration policy and therefore it is recommended that this section be deleted and the following inserted in its stead:

Section 1. *Cost Finding*: The Code Authority shall cause to be formulated methods of cost finding and accounting capable of use by all members of the industry, and shall submit such methods to the Administrator for review. If approved by the Administrator, full information concerning such methods shall be made available to all members of the industry. Thereafter, each member of the industry shall utilize such methods to the extent found practicable. Nothing herein contained shall be construed to permit the Code Authority, any agent thereof, or any member of the industry to suggest uniform additions, percentages or differentials or other uniform items of cost which are designed to bring about arbitrary uniformity of costs or prices.

The foregoing provision is according to present Administration policy.

The price filing system as contained in Section 2, 3, 4, and 5 does not provide for a real open price, awaiting period is prescribed in which prices cannot before effective, no impartial independent agency is provided with which prices are to be filed, and other provisions are contrary to the present open price policy of the Administration. Therefore it is recommended that these sections be deleted and the following amendment substituted in their stead—this amendment does conform to the present Administration policy:

Section 2. Each member of the industry shall file with

a confidential and disinterested agency of the code authority or, if none, then with such an agent designated by the Administrator, identified lists of all of his prices, discounts, rebates, allowances, and all other terms or conditions of sale, hereinafter in this article referred to as "price terms", which lists shall completely and accurately conform to and represent the individual pricing practices of said member. Such lists shall contain the price terms for all such standard products of the industry as are sold or offered for sale by said member and for such non-standard products of said member as shall be designated by the Code Authority. Said price terms shall in the first instance be filed within ten days after the date of approval of this provision. Price terms and revised price terms shall become effective immediately upon receipt thereof by said agent. Immediately upon receipt thereof, said agent shall by telegraph or other equally prompt means notify said member of the time of such receipt. Such lists and revisions, together with the effective time thereof, shall upon receipt be immediately and simultaneously distributed to all members of the industry and to all of their customers who have applied therefor and have offered to defray the cost actually incurred by the code authority in the preparation and distribution thereof and be available for inspection by any of their customers at the office of such agent. Said lists or revisions or any part thereof shall not be made available to any person until released to all members of the industry and their customers, as aforesaid; provided, that prices filed in the first instance shall not be released until the expiration of the aforesaid ten day period after the approval of this code. The code authority shall maintain a permanent file of all price terms filed as herein provided, and shall not destroy any part of such records except upon written consent of the Administrator. Upon request the code authority shall furnish to the Administrator or any duly designated agent of the Administrator copies of any such lists or revisions of price terms.

Section 3. When any member of the industry has filed any revision, such member shall not file a higher price within forty-eight (48) hours.

Section 4. No member of the industry shall sell or offer to sell any products of the industry for which price terms have been filed pursuant to the provisions of this article, except in accordance with such price terms.

Section 5. No member of the industry shall enter into any agreement, understanding, combination or conspiracy to fix or maintain price terms, nor cause or attempt to cause any member of the industry to change his price terms by the use of intimidation, coercion, or any other influence inconsistent with the maintenance of the free and open market which it is the purpose of this Article to create.

While we are on this subject of prices, we wish to inform the industry that we are well aware of the fact that prices have advanced materially in this industry. The following is quoted from a letter received by a customer (1) "We have been ordering material from ———— for some time past having a purchase last December 1933, one in April 1934 and this last disputed one in June 1934. Without notice to us the prices on the materials shipped June 12, 1934 born increases over April prices ranging from 5 per cent to 73 per cent, and on one item which had been previously purchased December 1933 the increase in price was 21 per cent.

Not only are prices increasing, but we are amazed at the degree of uniformity shown.

As a further example of absolute uniformity of prices we are submitting our Exhibit "A" which shows the uniformity of bids received by the Federal Government. The number of identical bids is staggering.

The following is quoted from another customer. "The paper manufacturers claim there has been an increase in manufacturing costs of super paper of about $13.00 per ton during the last year. This figure is corroborated by the above mentioned member." Yet, in so far as we were able to determine THE PRICE HAS INCREASED $41.40 per ton. Very interesting and rather illuminating: (5)

Here are a few more prices given to us by another customer (7) English Finish Book Paper, Old Price $5.35, New Price $7.30—36 per cent increase. Coated Paper Old Price $7.00, New Price $11.25—61 per cent increase.

In view of all this—you come down here and ask for a very rigid method of price control, if not absolute price fixing! We *do* feel that you are requesting entirely too much and that *there is no need* for the form of protection you request. We therefore recommend the adoption of the open price plan as previously outlined, just prior to my discussion of the actual prices now being charged.

Section 7 provides for the declaration of an emergency, and is contrary to present administration policy. Therefore we recommend the deletion of the section and the substitution of the following:

"Section 7. The standards of fair competition for the industry with reference to pricing practices are declared to be as follows:

(a) Wilfully destructive price cutting is an unfair method of competition and is forbidden. Any member of the industry or of any other industry or the customers of either may at any time complain to the Code Authority that any filed price constitutes unfair competition as destructive price cutting, imperiling small enterprise or tending toward monopoly or the impairment of code wages and working conditions. The Code Authority shall within five days afford an opportunity to the member filing the price to answer such complaint and shall within 14 days make a ruling or adjustment thereon. If such ruling is not concurred in by either party to the complaint, all papers shall be referred to the Research and Planning Division of NRA which shall render a report and recommendation thereon to the Administrator.

(b) When no declared emergency exists as to any given product, there is to be no fixed minimum basis for prices. It is intended that sound cost estimating methods should be used and that consideration should be given to costs in the determination of pricing policies.

(c) When an emergency exists as to any given product, sales below the stated minimum price of such product, in violation of Section 8 hereof, is forbidden.

Section 8. Emergency Provisions:

(a) If the Administrator, after investigation shall at any time find both (1) that an emergency has arisen within the industry adversely affecting small enterprises or wages or labor conditions, or tending toward monopoly or other acute conditions which tend to defeat the purposes of the Act; and (2) that the determination of the stated minimum price for a specified product within the industry for a limited period is necessary to mitigate the conditions constituting such emergency and to effectuate the purposes of the Act, the Code Authority may cause an impartial agency to investigate costs and to recommend to the Administrator a determination of the stated minimum price of the product affected by the emergency and thereupon the Administrator may proceed to determine such stated minimum price.

(b) When the Administrator shall have determined

such stated minimum price for a specified product for a stated period, which price shall be reasonably calculated to mitigate the conditions of such emergency and to effectuate the purposes of the National Industrial Recovery Act, he shall publish such price. Thereafter, during such stated period, no member of the industry shall sell such specified products at a net realized price below said stated minimum price and any such sale shall be deemed destructive price cutting. From time to time, the Code Authority may recommend review or reconsideration or the Administrator may cause any determination hereunder to be reviewed or reconsidered and appropriate action taken."

The question naturally arises in connection with paragraph 2 of Article VIII, Sub-paragraph (1) standard, grades, sizes, weights, etc., as to whether or not it is contemplated that existing standards will be taken into consideration or whether entirely new standards are to be developed. In either case, the consumers have a definite interest in standardization and to this end, we would suggest that the following clause be incorporated in the code:

Within one month after the effective date of this code, the Code Authority shall appoint a committee, so constituted as to give due consumer and governmental representation, to make a study, with a view to the establishment within 6 months following, of classifications and standards of dimensions, qualities, and the labeling of the products of the industry wherever such standards shall prove feasible. It shall be an established policy that the standards so established shall be submitted at the earliest possible date for general approval and promulgation through the procedure of the American Standards Association, the National Bureau of Standards or any other standards body now existing or to be established which will guarantee both governmental and consumer representation in the final drafting and promulgation of the standards.

Sub-paragraph (2) suggests the possibility of price fixing through the imposition of uniform differentials and charges for extra work and services.

Sub-paragraph (3) provides in a single all-inclusive sentence what we cannot help but interpret as a basing point and zoning system. Such a system is always designed so as to make it unnecessary for producers to compete in prices by allowing entry into territory which would normally comprise their home markets by other producers shipping from great distance. The latter producers reciprocate. The system precludes any reduction in price on the part of nearby producers in favor of local customers so as to shut out distant producers. To make a local or other price reduction under this code, when this system is placed in operation would constitute a crime. The effect of such a system upon the consuming public is still more important. The public is deprived of the benefits of price competition, is charged the excessive base prices inherent in the practice, together with "imaginary" freight charges or the cost of the cross-hauling of materials which is inseparable from a nation-wide marketing of paper and pulp products. This system would not be devised, and proposed by the paper producers in this manner unless it resulted in bringing in at least as much revenue, in their belief, as would be brought in by an f.o.b. mill system. These charges are not all that the consumer loses under the system. The high base price and real or "imaginary" freight charges are, of course, paid in the first instance by the distributor and the distributor thereupon includes them in his own costs and covers them into his price with a percentage of profit added. Likewise the jobbers of those products, having paid the fictitious transportation costs, add their own percentages of margin to their purchase price and sell the products to the retailer and/or printer who adds his percentage to his purchase price for selling purposes. Hence, the consumer pays excessive base prices and actual cross-hauling or "imaginary" freight charges, as the case may be, with successive additions throughout the distributive system.

These considerations and similar ones held by the Federal Trade Commission lead us to scrutinize carefully any proposal that avowedly attempts to average cost of freight and transportation so as to place all members on an equal competitive basis, regardless of the locality in which such a member may be situated. The only safe way to protect members of the industry as to natural advantages is to require that all prices be filed upon an f.o.b. mill basis; this, at the same time, assures consumers of fair and equitable treatment based upon all customers of the same class paying for their goods a price that in each case will net the same return to the producer, and wherein none are obliged to pay any more than the actual transportation charges involved in bringing the goods to their doors.

Sub-paragraph (5) would give the power to each Division to classify customers, define each class established and specify the maximum commissions and allowances that may be allowed to each class. Of all our commercial structure, the part engaged in the various functions of distribution is the least perfect. In it more sweeping changes are taking place than elsewhere. Nowhere else is there greater latitude for rationalization and improvement. In this the consumer and the manufacturer should have a common interest, the former to get his needs filled with a minimum of lost motion and expense—the latter in securing the widest possible expansion of his market consistent with the selling expense involved, or the retention of present markets at lower distribution expense, and in either case, greater opportunity for profit to himself. Doesn't it seem like a step backwards to set up mandatory customer classifications and discounts at a time when the functions of distribution are changing or may change as improvements are developed in our marketing system? There is no reason why all members of an industry should be cast in the same rigid mould and forced thereby to employ the same distribution system. Nor is there any reason why all of the elements of the distribution system as now constituted should be guaranteed the exclusive and perpetual right to continue in their present capacities.

Sub-paragraph (6) constitutes a blank check to the Code Authority to prescribe uniform regulations respecting contracts, quotations, terms and conditions of sale. Just how the officers of paper corporations can consistently propose to relinquish the rights and duties conferred upon them by the stockholders to make contracts for their respective corporations is not very clear. We are sure that the consumer does not wish to waive his rights in such an important matter. As the Consumers' Advisory Board wishes to justify its views on other than legal grounds, such as those held by the United States Supreme Court in the Famous Players Corporation et al vs. U. S. case, and by the Federal Trade Commission in cases considered by it, we confine ourselves to the following objections to uniform contracts:

1. They tend to "freeze" the commercial relationship at a stage long before anything like perfection has been attained. They are rather a design for dying than living industry.

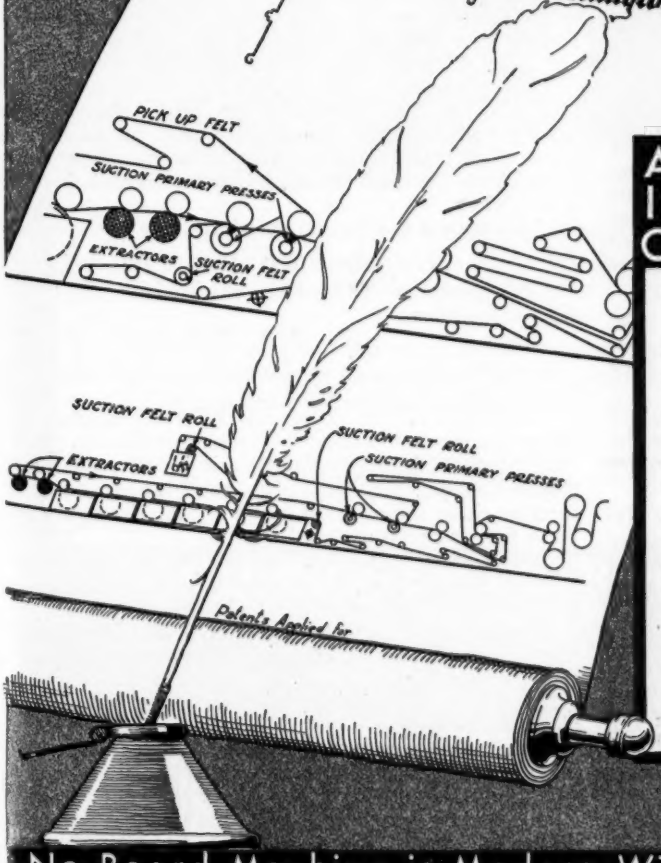
2. Too often the product of a monopolistic mind or group, they are seldom designed to benefit either the consumer or small enterprise.

3. They cannot be foisted upon the government either city, country, state, or federal.

DOWNINGTOWN

MCMXXXIV

The Duo-Dehydrating Press Part for Cylinder Machines by Downingtown



A NEW CHAPTER IN THE HISTORY OF BOARD MAKING

WHEN the primary press part was first introduced, its advantages were so phenomenal and indispensible that every board machine in the country became obsolete almost overnight. It remained standard for many years, but now, history is destined to repeat itself through the elimination of these same numerous small diameter presses by Downingtown Duo-Dehydration . . . This modern method of safely removing water by Extraction and Suction is applied in various arrangements and offers opportunities for more vat capacity, more plain presses or more dryers in the space gained. Write us today for the names of the mills that are now experiencing the advantages of the Downingtown Duo-Dehydrating Press Part. The Downingtown Mfg. Co., Downingtown, Pa.

No Board Machine is Modern *Without* DUO-DEHYDRATION

4. They are used as a vehicle for price fixing and other devices not asked for or not granted in the Code of Fair Competition.

These comments apply to paragraphs 4, 5, 6, 7, and 8.

We also wish to point out that, in our opinion, the Divisional Authorities are exceeding their power. It will be recalled that on January 26, trade customs for the various branches of this industry were considered at a public hearing. I want to introduce at this time our exhibit "B" which was my statement regarding our Board's views of those trade customs.

I now wish to introduce our exhibits "C" and "D" which are price lists filed on the forms as required by Executive Authority on one division of this industry. On the back of these price lists are the very trade customs and practices to which this board strongly objected at that hearing and which have never been approved by the Administration.

The following are a few of the "customs" included:

Arbitrary cutting charges in dollars and cents.

Minimum packing charges in dollars and cents.

Contract regulations.

Actual arbitrary dollars and cents differentials for the various weights.

Arbitrary glazing charges.

Arbitrary grade differentials in dollars.

Arbitrary color differentials in dollars and cents.

This is highly objectionable to this Board and now you are asking us to approve the granting of a blank check to the Code Authority and the Executive Authorities so they can impose many other so called "regulations" of this industry—But More Important, Upon the Customers of the Entire Paper Industry. This we cannot do and therefore ask the deletion of these sections.

Article X—Registration, Installation, and Use of Machinery. This article provides that all registered machinery, when it is registered for one type of product cannot be used to manufacture a different type of paper product unless the Code Authority so consents. It also prohibits a manufacturer from adding new machinery in excess of his present capacity, even though his business may warrant it, without the consent of the Code Authority—of course what the industry would like to have occur is this:

Mr. A. "Say, Mr. B, you have more orders than your machines will handle, now I have some old machines that are pretty obsolete, but you give me those orders—the code says we may share."

And then Mr. B. replies: "Certainly Mr. A., here are the orders. Now I know your product will not be the same, but the customer can't complain, because we can use the code as an excuse."

Well, we shall try to prevent Mr. B saying that to Mr. A! To say we don't like it is putting it mildly—and neither do many of your customers like it—and a goodly portion of your members are protesting it too. I shall now quote from some of the numerous letters of complaint that we have received.

This is from a member of your industry (9) (read Brunt & Co. Letter). This too is from a member of the industry (10) (U.S. Corrugated Fiber Box). This is from a customer (11) (Simmons Company letter).

I now want to present exhibit "E" which closely shows that the percentage of idle capacity in the year 1921 was no less than the amount of idle capacity in the year 1933—the same identical amount of idle machinery existed. Therefore, we do not feel that there is any emergency existing, for idle capacity always did exist in this industry and therefore the industry is not in need of this rigid machinery limitation and control of protect itself from bankruptcy within the next year.

Regarding the nearness to brankruptcy of this industry I wish to read a copy of an item which appeared in the Herald Tribune, New York City (12) (read article).

Also I wish to read a statement made by Dunn and Bradstreet's and another by Standard Statistics (13) and (14) (read excerpts).

Also I wish to quote from a trade paper regarding this idle mill evil. "During 1932 there were no new mills added to the industry and the increase in capacity was due to improvements in equipment and greater plant efficiency. On the other hand, the number of mills forced into idleness increased in 1932 as shown in the following table.

Mills	1929	1930	1931	1932	1933
Paper Mills (all grades)	56	62	70	88	163
Paper Board Mills	7	9	13	17	21

Analysis made from publications of Lockwoods Directory for the issues 1929-1933, idle mills are not deducted from stating the capacity figure since they are potential producers capable of operation should the demand warrant.

Article XI—Voluntary Agreements. I shall not take up your time to discuss this Article. I just want to state, that everything that I have said for the proceeding article also applies to this one.

Now, it may be argued, that in view of the increased wages proposed in this code, I believe it is an approximate 4c per hour increase for most employees receiving the minimums, that it is necessary for the industry to have all the protections requested in Article VIII, X and XI. I do not agree with that view.

In May, 1934 the index for all manufacturing industries showed a payroll increase of 31.6, but the Paper and Pulp industry showed an increase of only 30.6. Also the index for all manufacturing industries showed an employment index of 57.1 whereas the paper industries showed 35.9. So much for the employment and wages—now their related item—prices.

These figures are for the month of May in these years.

	1929	1930	1931	1932	1933	1934
Paper & pulp prices	89.3	86.6	81.5	76.5	70.7	83.7
All commodities (mfg.)	102.	88.8	73.2	64.4	62.7	73.7

From the above figures, I should say that prices have been held up fairly well in your products.

Also I wish to present exhibit "F" which shows the relationship between wages and employment from 1923 to date. I do wish to compliment this industry on the employment figure, for that is high, but I cannot compliment them on either their payroll figure or the price figure when these figures are considered together.

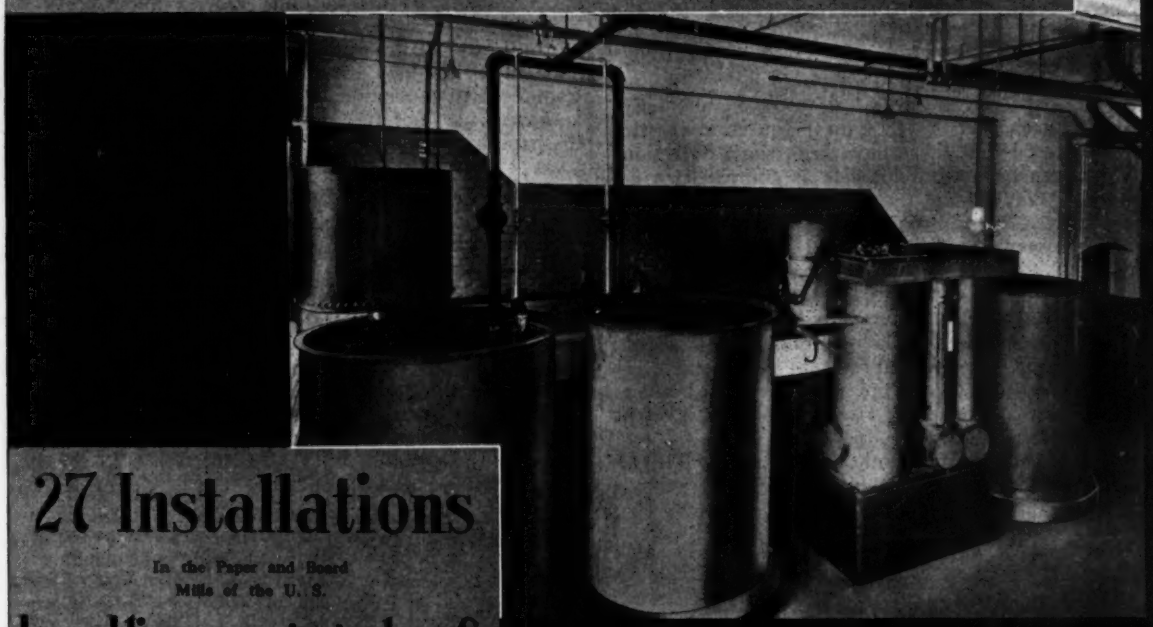
I also wish to present exhibit "G" which shows the small percentage represented by wages in the value of the product. This is also bourne out in exhibit "H."

When all these facts are considered, this is my conclusion—you are really coming before us today and ask us this question:

Mr. Recovery Administration, can you give us two dimes for a nickel?

And I, speaking for the Administration must say that in so far as the Consumers' Advisory Board is concerned —No, we can't give you two dimes for your nickel, for strange as it may appear to you, that really is against our principles.

DELTHIRNA SIZING PROCESS



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Remarks by A. R. Graustein

A. R. Graustein then made a brief statement in which he took up in part the open price question. "Our industry," he said, "has unusual problems." He then went on to point out the fact that competition for volume of business in the paper industry is extreme and he predicted "that the new code will fall short of the hopes of the industry."

Other Speakers

Charles Sage of the Kimberly-Clark Company also made a short statement in which he took up the question of price control. He stated that there have been some objections to what has been termed monopolies as contained in articles 10 and 11 but he said these must be taken with the rest of the code. He said that he might want to present later a more effective product control plan.

John P. Burke of the Labor Board also made a statement in which he called particular attention to the fact that the President in his order in signing the original paper code had stated that the labor minimum rate should be 40 cents an hour. He pointed out that in this statement the President had not taken up either the question of zones or of males or females. He said that the present minimums are not adequate.

The trend of wages in all other industries, said Mr. Burke are upward and he pointed out the fact that the adequacy of minimum rates for labor is a vital question at the present time.

Mr. Burke suggests substitute rates for those suggested in the new code. He also suggested that the central division or zone be eliminated and that the rates for men in the northern zone be $18 per week and for women $16 and in the southern zone that the rate for men be $17 per week and for women $15.

He also suggested that time and a half be paid for overtime instead of time and a third. He said that he had never heard of time and a third for overtime until the code became effective.

After seven months operation under the code, said Mr. Burke, it is certainly fair to say that the code has been beneficial alike to both the industry and labor and he admitted that the code has been a great benefit to labor in the paper and pulp industry. All of the provisions of the code, he said should be rigidly lived up to and he called attention to the fact that there are some mills who are not living up to the code either as to hours or wages. However, he admitted that the most of the members of the industry have leaned over backwards in living up to all of the labor conditions of the code.

Florence Barnes of the National Women's Trade Union League made a brief statement in connection with wage differentials between men and women.

Thomas Allen made some observations in opposition to various sections of the new code on behalf of the Newsprint Manufacturers Association, the Great Northern Paper Company and the St. Croix Paper Company.

Guy L. Harrington representing the National Publishers Association said that the proposed new code would certainly set up a monopoly and he also opposed the open price provisions. From the buyers viewpoint he said the code is not equitable. The buyers would little redress under it, he stated, and there is no question but what it controls both price and production. He said that price fixing will not contribute to recovery.

A. W. Leslie, chairman of the code authority for the paper distributing industry suggested a new definition of "member" other than that proposed in the new code.

Others who spoke either for or against the code included Benjamin Kushel of the Metropolitan Paper & Bag Corporation, New York City, who said that his firm should come under this order but was excluded by the definition of "member"; Edward J. Legassie, of the Cross County (N.H.) Club who asked for a minimum of 60 cents an hour; Warner I. Cubberly of the Columbia Paper Mills; P. H. Rogers, of the Carolina Fiber Company; William S. Bedel, Calcasian Sulphite Paper Company; J. M. Austin of the Florida Agricultural Industrial Relief Association; and others. Sidney Frohman, president of the National Paperboard Association and chairman of the paper code authority for that industry presented the new code for the paperboard industry.

American Writing Pays in Silver Bullion

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., July 3, 1934—Quite a ceremony marked the delivery last Friday to the Holyoke Water Power Company by the American Writing Paper Company, Inc., of some 8,600 ounces of silver in payment for water rent leases of the power company. Photographers and officials of both companies were on hand; and the silver which at the request of the power company was in the form of bullion bars was taken out and photographed. Two boxes contained it.

Today the price of silver has increased so the paper company is not as well off as it was in paying its water rentals on some of its old indentures in silver as specified in them. The power company refused to accept the silver on two occasions; but following a decision of the United States District Court it was decided to do this taking the case on appeal to the United States Supreme Court if possible. The paper company statement follows:

"The American Writing Paper Company, Incorporated, which on Monday, in the United States District Court, petitioned as a debtor under the new amendments of the Acts of Congress relating to bankruptcy, is continuing to pay for certain of its water power privileges to the Holyoke Water Power Company in silver bullion, standing on the letter of the terms of the antiquated indentures which the American Writing Paper Company, Incorporated, has never been willing to modernize.

"Accordingly, this morning, in carrying out this cumbersome procedure of payment of a bill, the American Writing Paper Company, Incorporated, delivered by truck to the Holyoke Water Power Company, at its office on Canal street,, 8,688.34 troy ounces of silver.

"This brings the payments in silver up to approximately 60,000 troy ounces, or over two avoirdupois tons of metal, since the American Writing Paper Company began taking advantage of this clause in their old indentures dating back to the days of unstable money following the Civil War period.

"On July 1, 1931, when the American Writing Paper Company, Incorporated, first began these cumbersome payments in silver bullion, the value of silver was then about 25 cents an ounce, and now, as the American Writing Paper Company, Incorporated, persists in payments in this metal, the market price of silver has risen on them to over 45 cents an ounce. Silver experts look for the United States government activity in the purchase of silver to result in the further rise of value of silver to $1.29 per ounce."

Norwegian Pulp Production Increases

WASHINGTON, D. C., June 27, 1934—Norwegian production and exports of wood pulp increased during the first quarter of the current year, while sales of paper declined sharply, according to a recent report from Vice Consul George M. Abbott, Oslo.

LOCKWOOD'S DIRECTORY

OF THE PAPER AND ALLIED TRADES

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Coated Paper Manufacturers

Envelope Manufacturers

Glazed and Coated Paper Manufacturers

Idle Mills
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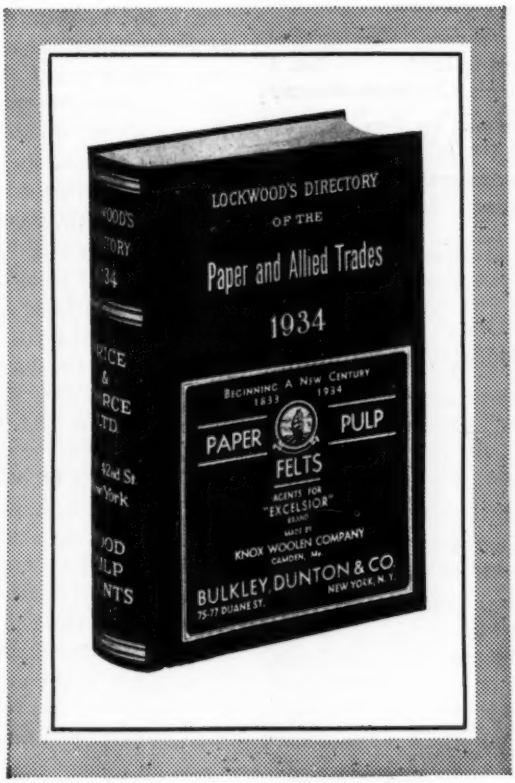
Machinery and Equipment Manufacturers
Mill Officials

Pad Manufacturers
Paper Merchants, Canada
Paper Merchants, United States
Paper Stock and Rag Dealers
Paper Bag Manufacturers
Paper Box Manufacturers



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COMING EVENTS

Technical Association of the Pulp and Paper Industry, Fall meeting. Headquarters Multnomah Hotel, Portland, Ore., September 10-13, 1934.

Paper and Pulp Section, National Safety Council, annual convention, Hotel Statler, Cleveland, Ohio, October 1-5, 1934.

AN INTERESTING CONTROVERSY

A controversy, that is interesting to say the least, has developed between Mordecai Ezekial, economic adviser to the secretary of the Department of Agriculture, and Francis P. Garvan, head of the Chemical Foundation, as to whether or not the former has turned "thumbs down" on efforts to develop a new pulp and paper industry in the South. Mr. Ezekial resents these charges. Writing to Dr. Garvan, he says:

"In my previous letter, I took issue with your statement that all the money spent on imported pulp wood was so much waste. Instead of this, I pointed out that it was only through imports that foreign customers for Southern cotton could get the funds to pay for it. That does not mean, however, that the Department is not disposed to do everything it can to encourage the development of new industries wherever those industries are well adapted to our resources and can stand on their own feet. Accordingly, our study of this and other new utilizations for Southern products will be pushed forward as rapidly as our diminished appropriation for research makes possible, with a view to assisting in every way we can with the development of new and efficient industries.

"Your letter of January 17 has been placed before the Forest Service for their comment, both as to the present status of experimentation in this connection, and for their opinion of the feasibility of the proposals which you make.

"When definite conclusions have been reached by the Forest Service as to the practicability of your proposals, I shall be glad to place them before you for your further suggestions."

To this Mr. Garvan replies that Mr. Ezekial did turn "thumbs down" on the efforts being made to develop the paper industry of the South and asserts that Mr. Ezekial is still an exponent of the movement for birth control of new American industries. Mr. Garvan continues:

"Further you state: 'In my previous letter I took issue with your statement that all the money spent on imported pulp wood was so much waste. I made no such statement. I did state: 'During the last four years the imports of wood paper and paper base stocks into the United States have amounted to an average of over 170 million dollars a year. This amount is roughly 70 per cent of our yearly consumption. This amount goes abroad and is lost each year and what we get for it is used and goes down the sewer. This 170 millions a year, if spent here, would revolve and be spent ten times. So 1 billion 700 million dollars worth of business in this country is lost to our economy each year.' Which is quite a different proposition and points out your essential lack of understanding of international trade. You do not seem to understand that $1.00 of domestic trade is more valuable to our national economy than $5.00 of international trade. Do you not understand the theory of the revolving dollar?

"There is an entity—call it American civilization, American standard of living, American business, jobs, the going machine of American life, American production and consumption, or what you will—whatever you may call it, it is the result of the development of America since the day Columbus landed on our shores. It is the result of the sweat and battle and sacrifice and genius of our forefathers. It is our inheritance and we are entrusted with it for the benefit of our children and our children's children. Each generation has left it to its succeeding generation more virile and self-contained than it received it. It is not only a business development, but it is warped and wefted with our liberties and freedoms. You cannot just cut out of it a segment and label it the machine lace industry of Rhode Island, the wool industry of the West, the dye industry, the medicinal industry, for example, and say we will trade this segment of that entity for this year's fortuitous surplus of an agricultural product.

"As you cannot judge its economic effects, so you cannot judge its moral effects. It is a violation of the Eighth Commandment, given by God to your Moses and to mine —'Thou shalt not steal'—for you would rob the lace maker of Rhode Island and his laboring men, ostensibly to enrich the farmer. But I know the farmers are honest, God-fearing Americans who will spew out such stolen profits. You would substitute Mordecai Ezekial, et al, for God in attempting to shape our endeavors in contradiction of His Laws. Perhaps the drought is God's first answer in that unequal conflict.

"Take this very example of paper. We are endeavoring to start production of newsprint made from the slash pine of the South, thus diminishing unemployment, utilizing idle lands, solving the over-production of cotton prob-

lem, realizing a profit from the Government's reforestation project, and providing an outlet for the power developed by the Tennessee Valley Authority. This production promises continuous domestic supply and definitely reduced prices, without tariff, bonus or artificial aids.

"We consume 50 per cent of the world's consumption. Imports averaged over 170 millions yearly for the past four year, or 70 per cent of our consumption. The present 30 per cent domestic production is dying in competition with imports. Tomorrow 100 per cent of our consumption will be necessarily imported from Canada, Sweden, Norway and Germany. Day after tomorrow these four countries will form a cartel and dictate to us, to our school book publishers, to all users, our price of white paper, and will thus control their margin of profit. What will then become of our boasted freedom of the press, on which all our other liberties depend? Will you have truly represented the interests of the American people if you trade this industry for the surplus hogs or surplus wheat, as your first letter insisted? What economic professor can figure out that trade? The price of paper is fixed now in the British Empire. Are you willing to rest our liberties under such control?

"Do you begin to understand the sanctity to a patriot of the entity we call our American civilization?

"What do you know about the possibilities of the pine paper industry in the South? Its basic principle is the utilization of the God-given solar energy and climatic conditions of the Southland, and God alone knows what the future holds from its development.

"But of higher moment than all these considerations we should have in our hearts and minds the character of our boys and of their boys—the ultimate Americans. For immigration is over! the melting pot is boiling to a homogeneity and a consistency. Education is almost universal and it is time for us all to be shaping the mind and heart and ideals of the type American who is to become the heir and trustee of this land of God-given resources and incomparable traditions of men and struggles. Is he to be honest—man-to-man, country-to-country, Government-to-citizen and citizen-to-Government? No accessory of dishonor, either before the fact or after, with no inferiority complex abroad and no superiority complex at home. Proud of his race and its men and traditions, and determined to preserve his inheritance free from these ever-recurring evasions of and assaults upon the Laws of God. Is he to be free, or is his freedom to be in foreign hands?

Is the Malaysian to tell him he cannot have rubber, the Brazilian to tell him he cannot drink coffee; is the Cuban to tell him he cannot have sugar, save on their terms? Is the Canadian or Swede to dictate what he shall read in his papers, or what his children shall study in their school books, or is he to walk through life with his eyes to the Heavens, acknowledging no limitation on his development save the Will of God."

This is all very interesting and we probably shall have more of it for Dr. Garvan is among the foremost disciples of a self-contained U. S. A., and likely to prove a powerful factor in consummating the dreams of the past few years of Dr. Herty to establish in the South an industry devoted to the manufacture of white paper from Southern pine.

Paper Firms Plead Guilty to Code Violations

DAYTON, Ohio, July 2, 1934—Pleading guilty of having violated the Code for the paper distributing industry, four companies accepted adjustment charges at a hearing before the Code Authority Subcommittee, last Thursday afternoon at the Hotel Sinton-St. Nicholas, in Cincinnati, members of the trade here have been advised.

Two other companies were involved in a friendly proceeding to obtain an interpretation from Washington. Of the six companies involved, four are located in Cincinnati.

This announcement was made by John L. Ritchey, Executive Secretary and counsel for the subcommittee of the Middle States Regional Committee of the National Code Authority for the Paper Distributing Industry. The names of the companies involved were not disclosed.

Of the four companies pleading guilty, three were assessed the minimum fine and one was fined the maximum. All four accepted the fines and signed agreements pledging their future compliance with the code.

In the friendly proceeding case, the code authority issued a ruling which was appealed by the companies in order to get the official interpretation from Washington. A Cincinnati and Dayton company were involved in this case.

The cases against the various companies were ended when the managers or officers of the various offending firms entered guilty pleas. If the fines had not been accepted, the cases would have been turned over to the higher authorities in Washington.

The committee hearing the complaints in Cincinnati was comprised of Henry Whitaker, Chairman; William H. Chatwood, Edward Wesselman, and C. J. Wittrock, all of Cincinnati; R. W. Miller, Columbus, Ohio; Ira D. Rohrer, Fort Wayne, Ind.; P. W. Lesh, Indianapolis, Ind.; Edward M. Magel, Indianapolis; Bruce Smith, Louisville, Ky., and George L. Tompkins, Louisville, and Mr. Ritchey.

Canadian Summer Meeting

The Technical Section of the Canadian Pulp and Paper Association will meet in Montreal on July 16 and will meet jointly with the Woodland Section at Windsor Mills, P. Q., on July 17 and 18.

On Monday there will be a luncheon at the Mount Royal Hotel followed by a meeting at the Pulp and Paper Research Institute where there will also be a demonstration of equipment.

On Tuesday there will be a morning session at the Institute and in the afternoon the party will proceed to Windsor Mills and from there to the logging camp of the Howard Smith Paper Company.

On Wednesday there will be an inspection of woods operations, featuring sap peeling, and a discussion of woodlands technical problems. Luncheon will be served in Sherbrooke, Quebec, after which the annual golf tournament will be held.

Collins Mfg. Co. Moves Offices

HOLYOKE, Mass., July 2, 1934.—The Collins Manufacturing Company announces the removal of its executive offices from Holyoke, to the mill at North Wilbraham, Mass., effective July 1, 1934.

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Section of the
Technical Association of the Pulp and Paper Industry
Edited by Ronald G. Macdonald, Secretary

New Stains for Fiber Evaluation*

By John H. Graff[1]

Reviewing the history of stains used for fiber indentification in the pulp and paper industry, it will be found that Herzberg stain was the original and by far the most commonly used. Even today it is more common than any other one stain. However, in the past twenty years several secondary stains have found a supplementary use for more accurate determinations of certain fibers. Among these stains Lofton-Merritt stain is used to differentiate unbleached sulphite and kraft, and Bright stain is used to differentiate bleached and unbleached chemical pulps. The Technical Association of the Pulp and Paper Industry has included in its Standard Methods for fiber analysis the formulas for the Sutermeister, the Jenk's, and the Alexander stains. Further the German and English literature during this time has published a large number of more or less useful stains.

The drawback with most of these formulas is that they are double stains, that the proportions of the composition of the stains often are very vague, that, in all of the differential staining where dyes are used, the technique of the bacteriologist has been followed, that some of these stains require an undue amount of time, and worst of all that the descriptions of the color differentiations given by the stains to the different fibers are practically useless.

It certainly is not of much value to an analyst to know that a certain stain gives one type of fiber a ruby red and another type of fiber a wine red color reaction, as the idea of a wine red color depends upon the mood and fancy of the individual. Neither is it of value to know that a stain gives a blue color reaction to one kind of fiber and a blue-violet to another, so long as the average human eye can distinguish correctly at least 126 different color variations between these two colors.

Before going further, it will be of interest to study the most likely procedure of the average technologist in determining the fiber content of an unknown sheet of paper, with the stains in common use. He will first apply Herzberg stain to see if the paper contains ground wood, chemical fiber, or rag. If the paper contains chemical fibers, he will have to apply Alexander or some similar stain to see if it contains any soda fiber. Then, he will have to make another slide on which he uses Lofton-Merritt stain to see if the coniferous chemical fiber present is sulphite or kraft, and, finally, he will have to make a third slide for staining with the Bright stain to determine whether it is unbleached or bleached sulphite.

An experienced and conscientious technologist can, of course, by this procedure make fairly accurate determination of the more common fibers in a paper if not overburdened with other work, or he has only a few samples for analysis to do every day. But if he has a large number of analysis to make, it is not more than human that he will make some mental deductions based upon what he thinks the sample of paper should contain. It is, for example, very natural to think that a sulphite ground wood paper with a low color would contain no bleached sulphite, and he, therefore, fails to use Bright stain, although if he had done so he might have found from 10 to 25 per cent of this fiber. Not so long ago I had the opportunity of hearing an executive tell his analyst, who had a large number of ground wood papers to examine, that he did not think it would be necessary to make any tests for kraft or bleached sulphite, although it was found that a large number of the papers contained these fibers.

This shows that a correct analysis of a paper containing only the most common fibres depends to a large extent not only upon the integrity of the analyst, but also upon the relative amount of analysis he has to make every day. Further, when all varieties of other refined paper fibers which have come into use in the last few years are considered, it is seen that none of them can be identified by these staining methods. This created the need for new stains which would distinguish the new fibers. At the same time a single stain was desired that would make as many differentiations as possible so that a large portion of the personal element would be eliminated.

Stain Survey

To do this a separate study was made of all the stains published. Each stain was applied to every type of known fiber and the color reaction under the microscope for each one of these stains was carefully noted and checked against Ridgeway's color standard and nomenclature. All this was then carefully tabulated and compared, the technique of some of the stains modified one way or another until a better and more dependable result was obtained in color differentiation between the different types of fiber, and eventually new combinations of metallic salts and iodine-iodide solutions were tried. Finally after many hundreds of different tests and cross checks had been tried, the "C," "F," and "E" stains were developed. Filter papers were dyed to match the particular color as shown by the Ridgway's color standard for each type of fiber stained by this accepted stain.

* Presented at the annual meeting of the American Pulp and Paper Mill Superintendents Association, Poland Spring, Maine, June 20-23, 1934.

[1] Instructor in Fiber and Paper Microscopy, Institute of Paper Chemistry, Appleton, Wis.

Small pieces of these dyed papers were then arranged for each stain and each type of fiber as shown by the color atlas. When there was a variation of the general results of a stain for a particular type of fiber obtained from different sources, the color samples for these stain reactions were placed alongside each other vertically, and, when there was more than one color reaction for a certain stain of the fibres from one and the same sample, the samples were placed one above the other horizontally. The color reaction for ground wood by the different stains was eliminated because this type of fiber can be identified by any one.

In studying this color atlas it can be seen that the color of the Herzberg stain (used as described in the Standard Methods of *Tappi*) gives practically no differentiation between the different chemical fibers and that the "A" stain or Modified Sutermeister stain (modified to a single solution) gives a much broader color differentiation between the different chemical pulps and by its use hard wood pulps can easily be differentiated from coniferous pulps and hard wood Alphs from the other hard wood fibers.

If the color reactions given for the different types of fibers with the "C" and the "F" stains are compared, it will be seen that a very wide differentiation between the different types of fibers is obtained and, although each one is very good by itself they also supplement each other. From the color atlas it will be seen that the "C" stain not only differentiates between the coniferous fibers, bast fibers, rag and hard wood fibers, but also between the different classes of the coniferous and hard wood fibers. The stain gives very distinct color differentiation between unbleached, lightly bleached and fully bleached sulphite; unbleached, lightly bleached and bleached Alphas; European and Eastern American sulphites as against West Coast sulphite; and finally, between kraft, semi-bleached kraft and refined kraft. If there should be any uncertainty as to bleached sulphite or refined kraft, a drop of the "F" stain can be used on the other end of the slide and a very distinct color differentiation will be seen between these two types of fibers.

In the hard wood fibers the "C" stain differentiates between kraft, semi-bleached kraft, refined kraft, hard wood sulphite, Alphas and soda fiber. Here again, the "F" stain will eliminate any uncertainty concerning the identity of sulphite and refined kraft. Soda fibers may be distinguished from refined krafts by use of either the "D" (Modified Jenk's stain) or "E" stain.

The "G" or Modified Lofton-Merritt stain, as well as the "H" or Modified Bright stain, have been changed to dye one and one-half gram of disintegrated fibers in a beaker filled with the particular dyes, instead of a few fibers on the slide.

The "G" stain will, however, not be needed to differentiate between kraft and sulphite when the "C" or "F" stains are used and the only use for the "H" stain will be to differentiate between unbleached and bleached soda fibers and between unbleached and bleached refined krafts. The "G" or modified Lofton-Merritt stain can, however, be used for another purpose which will be considered later in this paper.

In the "C" stain as can be seen from the color atlas, a single stain has at last been developed which differentiates between practically every known type of fiber to be found in a paper of any kind and it will be impossible with this stain for a conscientious analyst to say that he did not think that a certain type of paper did not contain certain types of fibers. The practical use and dependability of the stain has been proved at the Institute of Paper Chemistry, where in the last few months more than 1,000 fiber analyses have been made. Each sample has to be analyzed under two distinct and separate code numbers and no appreciable difference is allowable between the two results. Some days more than forty different samples have been tested by one analyst. It can readily be seen that under these conditions the older stains would be entirely inadequate. The analysis must, however, be made by daylight, preferably by light from the northern sky and the analyst must not only be entirely free from color blindness, but also must be fairly well trained in fiber analysis and in the practical use of the microscope.

The pulp and paper industry will in the future get quite a number of graduates from the Institute who will be trained to do this. This year the Institute will hold its first summer course in fiber microscopy for the technologists from different mills. If it proves successful, I believe that it will be continued each year during the summer months.

Single Stain for Fibers

The above has shown how the staining technique for fiber identification has been developed, so that now it is possible with a single stain to identify practically every known vegetable fiber, unbleached and bleached, that is used in the making of a sheet of paper.

The next thing, or more logically the first, is to evaluate the characteristics of the fibers in each individual pulp by staining methods before it is put into the paper furnish.

Any microscopist who has made a careful study of pulps and fibers has seen that, by the use of certain stains and dyes, there is usually quite a variation of the reaction between the different fibers in one and the same pulp, the degrees of this variation depending upon the degrees to which the pulp as a whole has been cooked or bleached and also upon the general purity of the pulp. This observation was first studied by H. Behrens in 1896, in "Anleitung zur Microche-mischen Analyse" where he described the use of Malachite Green and Congo Red. In 1920 Florence B. Seibert and Dr. Jessie Minor published an article on a method of "Differentiation of Sulphite Pulps," using a modification of Dr. Behrens technique. Since the methods of these investigators were of a more or less general character, it was necessary not only to standardize the method of dyeing, but also to make proper interpretation of the results.

If unbleached pulp is dyed by a standard method, first with Malachite Green and then with Congo Red, and microscopic slides are made of the results, it will be found that some fibers are dyed pure green, some a lighter green with red markings, others are red with green markings and some fibers are pure red. The relative proportion of the different colored fibers in the pulp depends upon the degree to which the pulp has been cooked. The more of the green fibers or the green with red markings, the less the pulp is cooked; the more red fibers with green markings or pure red ones, the more the pulp is cooked. A trained microscopist can from this judge not only the uniformity of the cooking of the pulp, but also the degree to which it has been cooked. The process by which the pulps was prepared, or the type of vegetable fiber used has no bearing on the results.

A much better and more accurate method, however, for determining the degree of cooking of a pulp by this dyeing method is to treat enough pulp so that a sheet can be made on a felt in a Buchner funnel which is then dried, and compared with a standard scale.

Pulp Bleachability

The scale has been made up of different cooked sulphite and sulphate pulps dyed by this method and arranged in order according to certain given arbitrary values. This

scale called the "cooking stain" scale or, if preferred, the "pulp bleachability" scale because the greener the dyed sheets, the rawer the cook, and the more bleaching the pulp will require. Likewise, the redder the sheets, the more the pulp is cooked, and the less bleaching it requires. The result in general parallels the permanganate number, gives a direct measure of the lignin present in the pulp, and also the amount of bleach required.

A single test can be made in half an hour, six tests in one hour and a half, and one person can easily make twenty to twenty-five tests in a day.

In the same manner that this method of staining indicates the degree of cooking or bleachability of a pulp, another stain will show the degree to which the pulp has been bleached. It is known that lignin has an affinity for basic dyes and that cellulose has none. Thus, if a pulp is treated in a certain manner with a basic dye, it will absorb this dye in proportion to the amount of lignin present in the fibers.

Experience has shown that one of the most sensitive dyes in this respect is Gentian Violet. If pulp, regardless of type, is treated with this dye in a certain manner and sheets are made from it, the same way as done for the cooking stains, color reactions all the way from dark blue-violet to practically colorless will be obtained in proportion to the amount of lignin and other impurities present in the pulp. The various color reactions are then given arbitrary values and are arranged on a color scale. These values are not only directly correlated to the bleach required and the time, but also they are related to the color of the bleached pulp.

The stain can be used for any type of pulp regardless of method of cooking and other processes of refining, but, as the stain is hardly visible on the individual fibers under the microscope, even in the most heavily dyed pulp, it cannot be used for the study of the uniformity of the treatment of the individual fibers in the same sample of pulp.

If the color reaction of pulps stained with the "G" or modified Lofton-Merritt stain, are next compared, it will be seen that the colors vary for the different pulps from a strong red or bluish violet to absolutely colorless. Microscopic examination of the pulps stained by this method will show that a sample, whose appearance is colorless, has a few fibers lightly stained, very few with a medium stain. and no strongly stained fibers. On the other hand, it will be observed that the pulps whose general appearance shows a medium stain contain a few colorless fibers, many light-colored ones, and a few medium-colored ones, and more rarely dark-colored ones.

Pulps whose general appearance shows a dark-colored reaction, contain very few light-colored fibers and no colorless ones. These characteristics have been observed by the examination of a large number of pulps. As the proportion of dark and medium colored fibers diminish, the more the particular pulp has been refined. It seems possible that, if the different color reactions were given arbitrary values, as for example 10 per cent for very dark colored fiber, 25 per cent, 50 per cent and 75 per cent for the intermediate color reactions and 100 per cent for the colorless fibers, the per cent by number of the differently colored fibers in each would indicate the degree of refining. If the percentage of each were determined in a pulp and then multiplied by its given arbitrary evaluation and the resulting figures added together, one should obtain a general factor which would be relatively small for pulps with a large number of dark-colored fibers, and high for pulps with the major portion of colorless fiber. Since this arbitrary number of increases with the supposed refinement of the pulp, it has been proposed, for want of a better name, to call this value the "pulp purity factor."

Comparative curves drawn of the results obtained from different pulps shows that there is not only a distinct difference between the purity factor curves for each individual pulp of the same group, but also that the curves of the average for each group show very definite characteristics for each type of pulp and that the differences are such as would be expected of the different types, since the calculated total per cent also coincides with the usual grading of these pulps.

Summary

Summing up what has been done in the development of new stains, it is seen that there are staining methods whereby not only the degree of cooking of any pulp can be determined, but also the uniformity of the cooking of the individual fibers in that pulp is shown. It also has been shown that the degree of bleaching of a pulp can be determined by staining, also, that the uniformity of the treatment of the fiber, bleached or refined, can be determined by another stain, and that all of these three stains, the "cooking," the "bleach" stain, and the "purity factor" stain supplement each other.

Furthermore, it has been shown that a stain has been developed to meet the need of determining the new types of refined fibers now being made. Since the common and the new refined fibers can all be distinguished with a single stain, the matter of detecting all the kinds of fiber present in the paper is no longer purely a matter of personal judgment.

The Black-Clawson Vat*

By Allan Hyer[1]

The mere mention of something new in vat design at once suggests changes of a revolutionary character and all builders of equipment are more or less susceptible to this prospect of a new development. In our opinion the fundamentals of making a sheet of paper on a cylinder mold have not changed materially since the first sheet was formed in this manner many years ago.

Whatever improvements have been made were inspired by the demands of the papermakers for better quality at higher speeds but the net result up to less than two years ago was an increase in mold diameters only. The manner of bringing the stock to the vats, the direction of flow, especially on heavy papers, and the removal of whitewater had seen very few changes.

If you are expecting to hear of miracles in the brief time we have to tell you about the Black-Clawson vat you will be disappointed. There is no black magic or mystery in our story, but, on the contrary, both in design and operation the most important claim to glory, if any, is simplicity.

Copper and steel have been employed in place of wood for the interior sections. Welded structural steel forms the frame-work to which the sheet copper is secured and this framework is bolted to the cast-iron ends on finished surfaces carefully drilled with jigs. Before reaching the cylinder surface the stock passes over a smoothly finished

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[1] Sales engineer, Black-Clawson-Shartle, Hamilton, Ohio.

broonze delivery table which is set accurately level with the face of the cylinder mold. On the opposite side the circulated stock is controlled by a regulating gate made of aluminum because of its light weight.

The completed vat is a machine as well built as any other part of your paper machine. We believe this precision is essential to properly govern the even and uniform flow of stock and to provide a quick and accurate response to the vat controls.

The approach of stock to the vat must also be given serious consideration in a discussion of speed and formation. Our construction of the mix box, the stock pipe and the hoppers leading to the vat are in support of our opinion that the first stage in the proper distribution of the stock for good formation begins as soon as the stock leaves the screens. To use a modern expression, the flow of the stock has been streamlined.

Two pumps are recommended for each vat. The white-water pump is a high efficiency centrifugal type of Hayton design for large capacities. The circulated stock is handled by a screw pump which is ample for the low lift required.

This briefly is a description of the vat and our reasons for certain features of the design. If there is any accomplishment in what has been done with this vat so far it is in no sense due to guesswork or a lucky shot.

It was our privilege thirty-five years ago to build the first board machine more than 100 inches wide. It was considered a monstrosity by some of the paper-makers of that day because it was believed impossible to form a sheet on a cylinder mold 122" wide. In the years since 1899 it has likewise been our privilege to build a large majority of the board machines now in operation. Out of this experience and because of an abiding faith in the future of the cylinder machine we have been able to predict with reasonable assurance that a .016 inch test liner sheet will be made at 500 feet or faster. Other grades will be made at proportionately higher speeds and of better quality. We are assuming, of course, that the methods of preparing stock will keep pace with the machine design.

Many factors influencing this prediction have been definitely proved since the first of these vats was put in operation one year ago. The Bogalusa Paper Company made the first sheet on the rebuilt No. 1 machine while this convention was in session at Green Bay. The machine operates consistently at 375 feet with an occasional increase in speed to slightly more than 400 feet. Built essentially for .016 inch test liner and light weight chip there are five 60" diameter molds on which they have made .055" chip and at the other extreme a 12-pound 24 x 36 inches all kraft wrapping.

One of our own engineers was stationed at the mill when the machine started and remained as an observer for three months. During this time, with the cooperation of the mill laboratory and the technical staff, data was collected and recorded on almost every conceivable test that could be made. From these records certain facts were definitely established and in most cases confirmed our ideas.

Following the Bogalusa installation we built a single vat for .009 straw, at Vincennes, Ind., three vats for rope stock at Peoria, Ill., and one for rag felt at Marseilles, Ill. In each case the same careful study was made under operating conditions. In each case the same outstanding characteristics were evident. The Continental Paper Company at Bogota, N. J., is using one vat for liner on one of their machines.

A new wet end with seven vats for 48 inch molds with electric drive, suction and extractor rolls, is being erected in Chicago at the Coated Board Division of the Container Corporation. Identical equipment is now under construction in our shop for the Fort Wayne Corrugated Paper Company at Hartford City, Ind.

The changes at Fort Wayne are especially interesting because they replace a wet end that was new in 1927 and at that time far in advance of anything that had ever been done on a board machine. There were seven vats with 48 inch molds and roller bearings throughout. They were able to reach a high speed of 360-375 feet per minute on test liner, but the numerous advantages of the new vats in combination with other improvements were easily sufficient to justify the purchase.

The Sylva Paperboard Company at Sylva, N. C. will make .009 chestnut chip on one of the new vats as soon as we complete it.

There seems to be a popular fallacy that the sheet made on a cylinder mold must necessarily be directional. The method of forming a sheet on a cylinder mold, if anything, provides better control of cross tests than is possible with a Fourdrinier. In one case where .009 straw is being made on the new vat which has just been described we were able to vary the cross tensile of the sheet from 64 to 94 per cent by regulating the stock circulation. This would seem to indicate that better grades of paper such as book and writing might be made successfully and with more profit on a cylinder than on a Fourdrinier. The question of high speed or a speed above 500 feet might raise some doubt although we know of instances where tissues have been made at 550 feet on a 36-inch diameter mold.

In concluding we want you to have a copy of our April *Messenger,* in which we have compiled a few tests taken from our records of new installations during the past year. Please remember that each installation is treated as an individual case and must be studied accordingly.

TAPPI Notes

H. F. Finck, formerly vice-president of the Container Testing Laboratories, New York, is now with the Champagne Paper Company, New York.

Ragnar Monnberg, who for several years was chief chemist of the Smooth Rock Falls mills of the Abitibi Power and Paper Company, is now sulphite superintendent of G. A. Serlachius A/B, Mantta, Finland.

L. W. Crouse, formerly with the Staley Sales Company, is now with Penick and Ford Sales Company in New England.

W. O. Manor, formerly a student at the Institute of Paper Chemistry, Appleton, Wis., is now with the Consolidated Paper Company, Monroe, Mich.

E. S. Catlin, formerly executive assistant of the Pejepscot Paper Company, Brunswick, Maine, is now vice-president in charge of manufacture.

O. C. Cordes, formerly of the Westinghouse Electric and Manufacturing Company, E. Pittsburgh, Pa., is now sales engineer for the Downingtown Manufacturing Company, Downingtown, Pa.

F. J. Sebeste, a recent graduate of the N. Y. S. College of Forestry, is now with the International Paper Company, Palmer, N. Y.

The Bureau of Standards has recently issued Research Paper R. P. 660 on "Sources of Error in Measuring Opacity of Paper by the Contrast Ratio Method," by D. B. Judd.

Bureau of Standards Miscellaneous Publication No. 144, "Summary Report of Bureau of Standards Research on Preservation of Records," by A. E. Kimberly and B. W. Scribner, has recently been published.

The above two Bureau of Standards publications are available from the Superintendent of Documents, Washington, D. C., for 5 cents per copy.

Government Printing Office Paper Tests and Their Significance*

By M. S. Kantrowitz[1]

Abstract

Testing of paper for compliance with specifications adopted by the Joint Committee on Printing is one of the most important duties of the Division of Tests and Technical Control of the Government Printing Office. It consists of technical testing covering the microscopical, physical, and chemical requirements and visual examination for comparison of the paper with standard samples which show color, finish, formation, and cleanliness desired. The significance of the tests is discussed.

Paper is to the printer what rag and pulp are to the paper manufacturer, his chief raw material. The Government Printing Office purchases annually on technical specifications approximately fifty million pounds of paper ranging from newsprint to the highest grade bond, ledger, and index. Government specifications for paper are drafted by a committee designated by the Congressional Joint Committee on Printing and are revised annually to conform to the needs of the service and to new developments in paper manufacture. These specifications include microscopical, physical, and chemical tests, which define the minimum quality of paper required for particular uses.

One of the most important duties of the Division of Tests and Technical Control is the testing of the deliveries of paper for compliance with these specifications. During the past twelve years 55,250 samples of paper and paper products were tested—an average of 4,600 samples per year. The methods of the Technical Association of the Pulp and Paper Industry are used as far as they are applicable. However, the physical tests are conducted at 50 per cent instead of 65 per cent relative humidity as adopted by the Association. All testing instruments are of the standard types approved by the Technical Association of the Pulp and Paper Industry and are periodically calibrated for accuracy.

In conformity with the paper specifications adopted by the Joint Committee on Printing, the testing of paper at the Government Printing Office consists of two parts: First, technical testing covering the microscopical, physical, and chemical requirements, and second, visual examination of the paper for comparison with standard samples which show the desired characteristics of color, finish, formation, and cleanliness.

Microscopical Tests

Microscopical analysis serves to determine the kind of fibers from which a paper is made. It also gives some information as to what may be expected in permanence and use of the paper. For example, ground wood and unbleached chemical wood pulp are subject to chemical change and deterioration due to the presence of lignin; soda pulp, with its short and thin-walled fibers, tends to make a weaker paper than sulphite or a mixture of rag and sulphite. Of approximately fifty million pounds of paper purchased by the Government Printing Office annually, about thirty-five million pounds are intended for more or less permanent-record use. In addition to specifying the rag content, it is required that the paper stock shall be free from ground wood or unbleached pulp. By the use of the microscope and selective stains the presence of lignified ground wood and unbleached fibers, which would be injurious to the serviceability of paper, may be detected.

The Government specifications for the various grades of writing, bond, ledger, and index paper state the minimum requirement for fiber content. The sulphite papers are required to be composed principally, or at least 51 per cent, of bleached coniferous chemical wood (sulphite) pulp. Certain rag papers are classified into four groups according to their rag content, to contain not less than 25, 50, 75, and 100 per cent rag. This classification is based upon the degree of permanence demanded of the paper. Microscopical analysis definitely determines the percentage of the various fibers specified for the papers of mixed stock. A compound microscope giving a magnification of 60 diameters and fitted with a mechanical stage is used for this work. In order to avoid eyestrain, the microscope is also fitted with projection equipment which throws the image of the fibers downward upon a horizontal screen.

Physical Tests

Although microscopical tests give information of value relative to the composition of paper and thereby offer some indication of quality, they do not measure the characteristics of actual strength, serviceability, and durability. It is therefore necessary to include physical and chemical tests.

Since certain physical tests of paper, especially folding endurance, are considerably affected by variations in relative humidity, it is essential that such tests be conducted under standard testing conditions. As adopted by the Joint Committee on Printing the standard paper testing conditions in use by the Government Printing Office are 70 to 75 deg. F. temperature and 50 per cent relative humidity. Our experience in using 50 per cent relative humidity for the past 12 years has shown that it is the most satisfactory testing condition for obtaining results which are more in harmony with conditions in printing plants, offices, etc., under actual service than the higher conditions of 65 per cent relative humidity.

The physical qualities included in the Government specifications for paper are weight, folding endurance, bursting strength, tensile strength, thickness, opacity, ink absorption, color, finish, formation, and cleanliness.

Weight.

Weight determinations are made on all deliveries of paper for the basis of cost. Payment for roll paper is based on its net weight unless more than 2½ per cent over the ordered 1,000-sheet unit, in which case the weight in excess of 2½ per cent is deducted. Flat paper is paid for at the ordered 1,000-sheet unit weight unless more than 2½ per cent under weight, in which case payment is made for net weight. If a delivery of paper is found to be more than 5 per cent above or below the ordered 1,000-sheet or other unit it is rejected.

Folding Endurance.

The tests for strength, which include folding endurance,

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[1] Member TAPPI, technical director, U. S. Government Printing Office Washington, D. C.

bursting strength, and tensile strength, determine the durability of paper. Durability has been defined as the degree to which a paper retains its original qualities under continual usage. These tests are in general a measure of resistance of the paper to a rupturing force. They differ from each other in the manner of applying this force.

Folding endurance is an index of the resistance of paper to repeated folding. This test is generally regarded as the most valuable for papers which are required to undergo considerable creasing and folding in use. Studies of the physical properties of bond, ledger, and kraft papers by the Division of Tests and Technical Control indicated that the folding-endurance test is the most indicative of the quality of these papers. The results showed wider variation between the different samples in the folding-endurance test than in any of the other tests to which the samples were subjected. It has been found, as a result of these investigations, that any paper meeting the folding-endurance requirements will possess good tensile strength and will usually meet the requirements for bursting strength.

Bursting Strength.

The bursting-strength test holds a time-honored position in Government paper specifications. This test is one of the oldest and most widely used for measuring the strength of paper. With the exception of newsprint, gummed paper, and railroad board, this test is made on all papers purchased by the Government Printing Office. The results of the test give an indication of the ability of a paper to stand up under a bursting strain. Several years ago the Government Printing Office requested information from experts in the paper industry as to their reactions concerning the value of the bursting-strength test. The replies received showed considerable variation of opinion. As a result of research pertaining to the physical properties of bond, ledger, and kraft papers the Government Printing Office has found the bursting-strength test insufficient for determining the quality of papers even when combined with specifications for fiber content. There is no doubt that a sheet may have a high bursting strength as a result of being heavily surface sized.

Tensile Strength.

Tensile-strength tests indicate the resistance of paper to breaking when subjected to a longitudinal strain. This test is made only on newsprint. The investigation conducted by the Government Printing Office in co-operation with the American Newspaper Publishers Association has shown that a tensile-strength test is more satisfactory than a bursting-strength test for measuring the actual strength of newsprint required for satisfactory operation on web presses where the applied strains are longitudinal. The requirement for bursting strength in the Government specifications for newsprint was replaced by a tensile-strength requirement in 1930.

The following quotation is from Mechnical Bulletin No. 102 of the American Newspaper Publishers Association:

"During recent years direct measurement of the tensile strength of paper appears to be receiving more favorable consideration. However, since the apparatus is more expensive than the Mullen tester and as the tensile strength is not quite so simple to make the pop tester has remained the standard instrument in most plants for paper strength testing. On the face of it, the tensile strength test seems to be a more logical and more informative test than the Mullen pop test, because the chief stress to which the web is subjected during its travel between the roll and the press cylinders is one of simple tension."

Thickness.

Thickness is an important factor of certain papers purchased by the Government Printing Office. Book papers of the same weight must possess uniform thickness in order that volumes of a set of books shall possess equal bulk. Tabulating paper (calendered tag) must be uniform in thickness in order that the cards shall fit exactly in the high-speed tabulating machines. As cartons in which postal cards are packed are manufactured to definite dimensions it is essential that the thickness of stock be within the specified limits. Installation of automatic banding machines at the delivery end of the postal card presses makes the specified thickness of postal-card stock necessary in order that the automatic grippers on these machines may function properly when delivering cards to the banding device.

Opacity.

Opacity is one of the most important properties of printing paper. It is the property of paper which prevents printed matter from showing through the page and thus interfering with legibility. This test is made on newsprint, book, and mimeograph papers. The opacity measurements are made by the contrast-ratio method. The paper is placed over a white surface of magnesium oxide or magnesium carbonate which gives a total light reflection value due to light reflected from the surface of the paper plus that which is reflected from the white surface underneath. The paper is then backed by a black body such as black felt or velvet, which gives a value due to the light reflected from the surface of the paper only, the transmitted light being absorbed. The latter reflection value divided by the former gives a decimal value known as "contrast ratio." The results reported are expressed in per cent opacity, which is obtained by multiplying the contrast ratio value by 100.

Ink Absorption.

The absorptive properties are of utmost importance for indicating the serviceability of blotting paper. The test is made by the pipette method, in which the time required to absorb one cubic centimeter of standard writing ink is noted.

Color, Finish, Formation, and Cleanliness.

No standard test methods for determining the color, finish, formation, and cleanliness of paper have been adopted by the Technical Association of the Pulp and Paper Industry. Prospective bidders are therefore supplied with standard samples showing these characteristics. Deliveries must conform with the Government Printing Office standard samples in color, finish, formation, and cleanliness as determined by visual examination of the paper.

The importance of these qualities is reflected in a paper written by P. K. Baird (*2*) of the Forest Products Laboratory in which finish is rated first, color second, formation fifth, and cleanliness sixth, among the first twenty significant sheet properties, following in order of their importance.

The following is quoted from a paper by E. O. Reed (*3*), formerly Technical Director of the Government Printing Office: "The finish of paper is a very essential feature to the printer, and the quality of his finished work depends upon the selection of paper which will give the best results with any particular character of printing."

Recent developments have made it possible to measure finish or surface of paper in numerical terms. A Bekk tester for measuring the smoothness of the surface of

paper in numerical terms has been described by the Division of Tests and Technical control (*4*) at the Government Printing Office in the PAPER TRADE JOURNAL. A paper on a new finish, formation, and porosity tester has recently been published in the PAPER TRADE JOURNAL by Frank M. Williams (*5*).

Chemical Tests

Chemical tests determine the permanence of paper. The preservation of records depends upon the permanence of the paper used.

Permanence is that property of paper which resists deterioration when stored under normal atmospheric conditions. It has been defined (*1*) as "the degree to which a paper resists chemical action which may result from impurities in the paper itself or agents from the surrounding air."

The chemical tests included in the Government specifications for paper are: ash, moisture, rosin, and acidity.

ASH.

Ash determinations are made on all book, mimeograph, map, manifold, writing, bond, ledger, and index papers. The determination for ash indicates the amount of residual minerals in fibrous pulps, loading material, or mineral matter derived from dyestuffs and surface coatings. The Government specifications state the maximum limitation of ash content for the different kinds of paper according to use. For instance, in the permanent bond and ledger papers it is essential that the ash content does not exceed 2 per cent. Loading in bond, ledger, and index papers tend to make them brittle. Loading in book paper may be necessary to obtain opacity, but must not affect durability. In coated book papers, where a smooth surface is required to permit the reproduction of fine half-tone cuts, the ash is due to clay or other minerals used in the coating.

MOISTURE CONTENT.

The moisture content is determined in postal card bristol only. The inclusion in the Government specifications of a moisture-content requirement for this paper was made necessary because of former difficulties experienced in the printing of United States postal cards. Investigation of these difficulties revealed that some postal-card paper formerly delivered to the Government Printing Office contained between 6 and 9 per cent moisture which, in adjusting itself to the moisture content of the low relative humidity of the pressroom, caused the cards to curl. This seriously interfered with production. It was also found that paper containing approximately 4 per cent moisture is best suited for the production of United States postal cards.

ROSIN SIZING.

Rosin-sizing determinations are made on all bond, ledger, and index papers and on other miscellaneous papers, such as map, chart, and manifold papers, intended for permanent or semipermanent record use.

It is generally admitted that rosin is detrimental to the life of paper when present in excessive amounts, as it tends to produce discoloration and deterioration of the paper constituents under the action of light.

Gosta Hall, in his study on premanence of paper at the Swedish Government Testing Institute (*6*), points out that rosin sizing increases the acidity which causes deterioration. He states: "If rosin sizing is applied, the amount of rosin should be kept down to a minimum and not more aluminum sulphate than about 0.8 per cent to each per cent rosin used."

ACIDITY

Another important factor affecting the permanence of paper is acidity. The acidity in paper is caused by excess of alum used to set the size and by aluminum sulphate when added as a preservative in the glue used in tub sizing.

Gosta Hall (*6*) characterizes acidity due to rosin sizing as "internal acidity" and acidity caused by tub sizing as "external acidity." He points out that the "external acidity" has no effect on the permanence of paper, while "internal acidity may affect the permanence to a marked degree.

W. F. Hoffman (*7*), of Northwest Paper Company, drew the following conclusions from the results of his study on the rate of deterioration of paper: "It was found that the higher the acid number and the higher the hydrogen-ion concentration the greater in general was the decrease in bursting strength of the paper."

There are two types of acidity determinations. One is a measure of the total acidity, which is the titratable acidity content expressed in terms of sulphuric anhydride or sulphuric acid. The other is a measure of the active acidity, expressed in terms of hydrogen-ion concentration Since the acidity requirements in the Government specifications are expressed as pH values, only this method of determining acidity will be discussed.

The term "pH value" designates the proportion of acid or alkali in solution having received electrical charges during dissociation, pH being the symbol used for hydrogen ion concentration.

The pH value is based on the fact that pure distilled water will conduct an electric current to a very slight degree, and a very small proportion of the water is dissociated into hydrogen (H+) and hydroyl (OH—) ions. The hydrogen-ion concentration of pure distilled water is 0.0000001 gram per liter. Since the method adopted for expressing the hydrogen-ion concentration is to take the logarithm of the reciprocal of the hydrogen-ion concentration, the pH value of distilled water is the log of $\frac{1}{0.0000001}$ or of 10,000,000 which is 7.0. This value 7.0 is therefore, the neutral point on the pH scale. If the number of hydrogen ions exceeds that of the hydroxyl ions, the solution is acid; if there is an excess of hydroxyl ions, it is alkaline. pH values below 7.0, therefore, denote acidity, the degree of acidity increasing as the numbers decrease. pH values above 7.0 denote alkalinity, the degree of alkalinity increasing as the numbers increase. A solution having a pH value of 6.0 contains ten times as many hydrogen ions as one having a pH value of 7.0. The former solution is therefore ten times as acid as the latter solution. A solution of pH 5.0 contains 100 times as many hydrogen ions and, therefore, is 100 times as acid as one of pH 7.0.

There are two methods of determining the active acidity or pH of a solution—the colorimetric method and the electrometric method. The principle of making pH determinations by the colorimetric method is based on the fact that various chemical indicators change their shades of color when added to solutions of different acidities or alkalinities.

The Acree-Fawcett isohydric indicator method is now being recommended to the Technical Association of the Pulp and Paper Industry by the Paper Testing Committee of the Association for adoption as a tentative colorimetric method. The procedure consists of locating the approximate pH of the paper extract by testing with an indicator solution adjusted at the midpoint of its range and then

making a further test with an indicator solution adjusted at the approximate pH. The results are read to the nearest 0.1 pH by comparison with color standards.

The electrometric method is the more accurate of the two methods. It consists in measuring the voltage of a cell composed of two electrodes, one of fixed potential and the other of a variable potential which is a function of the varying hydrogen-ion concentration. The electrode of fixed potential is the calomel electrode which consists of mercury in contact with a layer of calomel and a layer of potassium chloride crystals covered by a saturated solution of potassium chloride. The electrode whose potential is a function of hydrogen-ion concentration, may constitute a hydrogen, antimony, glass, or quinhydrone electrode. The Government Printing Office uses the quinhydrone electrode in making pH determinations. This electrode is placed into the paper extract whose pH is to be measured, as is also the capillary side arm of the calomel electrode. A small amount of quinhydrone is dissolved in the extract and the voltage of the complete cell is balanced with that of a standard Weston cell by means of a potentiometer. The pH value is then calculated from the electromotive force, expressed in millivolts, required to accomplish this equilibrium by the application of an equation formula, or may be conveniently read directly from graphs constructed upon the basis of the equation. Corrections are made in the calculations for variations of temperature at which the readings are taken. Full details of this method may be obtained from the Division of Tests and Technical Control of the Government Printing Office on request.

Other Tests.

A number of tests, such as gloss, tear, porosity, copper number, and alpha cellulose, are not included in the Government specifications for paper and are therefore not made in the routine testing of paper at the Government Printing Office.

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The Paper Industry Trend Towards Standardization of Product and Its Relationship to the Superintendent*

By Frederic C. Clark[1]

Ever since the World War there has been a definite, planned trend in industry towards standardization of product. The World War made it imperative to restrict the manufacture of products of slight sales volume and to concentrate on the manufacture of those products in greatest demand. This resulted in a marked increase in economy of operation, and reduction in costs.

Present-day mass production as exemplified by Ford could not be realized without the selection of the best method, best materials, and best equipment for performing each job. This means the use of standardized production methods and products, and results in lowering costs, with a corresponding increase in general consumption. Mass consumption always follows mass production if general economic conditions are anywhere near normal.

The tremendous rate of growth of all American industries to a point far beyond that of any other country has been due to the availability of great natural resources, ability to convert them into consumer goods demanded by the public, and the general ability of the public to pay for merchandise needed. This phenomenal growth of American industries is well illustrated by the growth of the American paper industry.

In 1810 the United States used only four-fifths of a pound of paper per capita per year. The present normal annual consumption of paper in the United States is over 160 pounds per capita. England is second in paper consumption, with less than 100 pounds per capita per year. The consumption in Germany, France, and other countries is materially less. Russia uses less than 10 pounds per capita. Growth in other industries has been fully parallel to that in the paper industry.

The continual presentation of new products, improved old products, or old products presented in slightly altered appearance, plus the ability of the general public to pay, or their willingness to mortgage their future have all contributed to the tremendous growth of American industry; and have allowed unrestricted competition to place on the market many products of doubtful value, or at least of little economic use.

The national emergency created by the World War and the concentration of man power in factories for the production of war munitions and supplies, forced many factories not so engaged, to operate on a restricted or curtailed schedule. Had the World War continued one year longer, we would have seen many drastic curtailments in those industries that were not producing war materials. A study of conditions then and later has clearly shown that while competition is essential to industrial growth, it is also possible for unrestricted competition to reach a point where it is uneconomical.

The great multiplicity of styles, varieties and sizes of paper on the market is due to competition and the continual effort of the sales department to secure a product that is non-competitive, or at least non-competitive for a time. New sizes and varieties are often introduced merely to reduce a price. Such style changes create talking points, and if volume sales result, it becomes necessary for competing firms to duplicate these new products. The final result is too often an accumulation of barnacles that soon becomes a real burden to the industry. Every paper mill superintendent knows the time required to make special orders and trial runs, and that expense rapidly mounts

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[1]Member TAPPI, vice president, Skinner & Sherman, Inc., Boston, Mass.

under such conditions, to a point where a large sales volume is required to pay a return on the effort expended.

A few years ago, the mere mention of the word standardization was quite enough to alarm everyone, for the then popular belief was that we must all wear the same ed colored necktie, ride in the same kind of an auto, and in every other way lose our identities, both social and industrial. We now know that the word standardization has a much broader meaning. Someone has aptly said that standardization is integration of effort, and integration of effort is best illustrated by the story of the integrated goat. A man bought an integrated goat because he was too poor to buy a lawn mower. The goat ate the grass, produced special milk for the baby, chased away stray dogs, fertilized the lawn, and ate a few tin cans on the side. According to the old quotation, this might be called "killing two birds with one stone." The modernizing of this old quotation would be something like this. Real scientific integrated effort will require that we kill ten birds with one stone and then get the stone back.

Standardization in its simplest sense refers to a means by which we may measure the quantity, quality, or value of a material, product, or service that is established by law of common usage. There is certainly nothing there about all wearing the same color necktie.

It is always easy to say that standardization is fine for the other fellow, but of no use in my mill because I am different and can't standardize. We have all heard remarks like that in the paper industry.

Size and Speed of Machines

Thirty years ago there began a struggle between paper mills to see who could claim they had the widest newsprint machine. For at least fifteen years, each news machine that was installed was one, two, or three inches wider than any other machine, so the owner of the new machine could say he had the widest machine in the world. In many cases the width of the machine installed was not a good trim for the standard newsprint roll, which thirty years ago was seventy-two inches wide, with multiples of one-fourth, one-half, and three-fourths of the full width. Many of these newsprint machines put in to beat out the other fellow were soon found to be uneconomical because of poor trim, etc., and have either been changed to other grades, or else have been replaced with machines that give a more economical trim.

In contrast to this old race for the widest news machine, it is of interest to note that almost all of the modern newsprint paper machines have been of 234 inches, which is sufficient for three standard seventy-two-inch rolls of newsprint paper. This race for width has changed to a race for quality, production, and economy of operation. All of this study, call it "integration of effort," or "standardization" if you wish, has resulted in the perfection of most of the mechanical parts of a paper machine to a point that is little short of marvelous.

Thirty years ago, or thereabouts, the fastest news machine was about ninety inches wide and running safely at 555 feet; that is, it was safe running in those days. Safe running meant not over four or five wet end breaks on a night tour of thirteen hours. Now and then you would hear of a newsprint machine that runs ten, twelve or fifteen hours without a break at say 500 feet speed. Contrast this performance of thirty years ago with the modern newsprint machine where a 234 inch machine on newsprint traveling at 1,200 feet per minute, has operated for seven consecutive days without a single break ahead of the calender stock. Moreover, all of this has been accomplished with the same sulphite, same ground wood, same furnish proportions and produced a sheet probably better in formation and strength than the old sheets made thirty years ago.

What has caused this change? Did it just happen, or is it the result of painstaking effort on the part of many brains, and much study? Such development is certainly integration of effort, for it means that the final result has been obtained by the combined effort of many. This is real standardization of operation, and this kind of standardization is of immediate value to the newsprint mill superintendent as well as to the superintendent of almost every other type of paper mill. What we learn in the manufacture of one kind of paper may generally be applied to many other kinds of paper. Improvements in equipment have an almost immediate application to all other grades of paper.

The past five or six years have produced a series of improvements that have materially added to both quality of product as well as quantity. Much of this development has been directly traceable to the ability of paper machinery builders to construct heavy equipment with an accuracy that is close to watch and instrument making. During this time we have learned that "running balance" and "static balance" are very different, for many mechanical parts that may be perfect static balance, become most irregular in rotation as soon as they are speeded up to high speeds.

One of the builders of paper rewinding equipment has provided means by which he may test out winders at speeds of 2,500 feet per minute. This is necessary because we have newsprint machines that have already reached speeds of 1,500 feet. A specialty paper machine on light weights has already been up to 1,650 feet, and it is claimed that it will be able to produce at or near the 2,000 foot speed mark.

In the last ten years, we have seen sulphite bonds made at 700, 800 and nearly 900 feet, and the paper made at these speeds is better in strength, color, cleanliness, formation and in every other respect than any all-sulphite bond of say twenty years ago, run at 100 feet per minute. The same condition holds true in almost all other grades.

The very high grade bonds and ledger papers have shown the least change in manufacturing processes during this period due to lack of demand for these papers. Lack of demand in a particular product is often the result of too high a price compared with what can be purchased that is almost as good and at a greatly reduced price. The 100 per cent sulphite bond, the 25 per cent rag bond, and the 50 per cent sulphite bond have been so well made during the past five years that they have very largely replaced the highest grade bonds. These lower priced bonds are being produced at much higher speeds, resulting in reduced costs, and this plus an increase in quality have made them most attractive to the using public. Ten years ago if those mills making the highest grade bond and ledger papers had undertaken a careful study of their raw materials and process of manufacture, it would have resulted in a material increase in speed of operation, reduction in costs, and all of this at no decrease in quality of product. In my opinion, it would have resulted in an increase in quality. If this study had been made, and had the results been as I have indicated, it is more than likely that these high grade mills would now be operating at a higher rate of production.

The word standardization, therefore, as applied to the operation of a pulp or paper mill means to get the most production, at the lowest cost, from each plant and this at no reduction in quality. This problem is before every mill and every superintendent. Many accomplish 10 per cent of their problem and are well satisfied to let well

enough alone. A very few pioneers accomplish 80, 90 or even 100 per cent of their problem and are still not satisfied, for they know that they must continue to improve each month or year, or else get lost in a race which never finishes but continues on as long as man shall live.

What to Look For

Every mill and every superintendent can apply standardization principles to his own conditions. There are four necessary steps and these should be continually studied as trade conditions change.

First: Formation of a definite plan having a definite goal in view.

Second: Make a complete plant survey, including power plant, manufacturing equipment, production capacity, and the routing of raw material through to finished product.

Third: Study of raw materials used and processes required.

Fourth: Study of product desired and its suitability for a particular purpose.

No doubt every mill and every superintendent will say at once that this is exactly what he is doing continuously, and of course that is true. The real question is whether he is in the 10 per cent class or the 80 and 90 per cent class. Every mill improves its product and its operation every year because it must follow the pace set by the most progressive mill in each group. Quality, cost and production records are broken by the crews that are not satisfied with previous results, and strange as it may seem, the breaking of a record in a paper mill means that the same one or a group have so adjusted or fixed the mechanical equipment that it operates more continuously and with less breaks or less "down time." Records then are broken when it is possible for operating crews to work less and allow the machine to operate productively. All this means integration of effort by an entire organization headed by a man who has learned how to think fast, then plan constructively, and third, has known how to encourage his crews to use their brains in preference to their brawn.

Today we hear the word "codes" on all sides and in every industry. What does it all mean? No one knows, but we all suspect we are definitely headed in some direction, destination as yet unknown. One of the first results under the various codes, has been an attempt to eliminate unfair trade practices and cut-throat competition. Several branches of the paper industry have set up tentative quality specifications for their product at various price ranges. This all means standardization of quality or grade. Work of this kind is, I believe, of material benefit to a mill because it means that a superintendent has a certain target or goal set for him, and it eliminates the continual change so often demanded by the management, and allows the superintendent to concentrate his efforts on improving his general operating conditions.

I would like to leave one little suggestion with you all today. It is just an idea, it has helped others, the best operated mills generally have much of it, and some mills not so well operated have very little of this idea in their make-up. I would like every one to draw a large "?" on a piece of paper and keep it continually before him. It is useful in running a mill, or a laboratory, or in fact about any othe kind of business. Become a human question mark, and learn to take nothing for granted. We are all of us apt to get part of the picture or part of the test results and jump to a hasty conclusion. When we do so, we are often wrong, and therefore we must learn to question and requestion ourselves and our data before drawing definite conclusions. Therefore, "don't go off half cocked" as the old saying is. Better still, keep a "?" always before you, teach your operating crew the importance of the old "?" and it will save a lot of alibis.

Remember one thing more—that the most luscious peach or pear or apple reaches a peak when it's ripe, and then decay sets in. The old saying has it,

"When we're green, we're growing.
When we're ripe, we're rotten."

So keep a little on the "green" side and that old "?" always before you.

Wood Room Operation*

With Particular Reference to Reduction of Sawdust and the Use of a Chip Filling Device

By John Frank Garrigan[1]

In the course of conducting a survey of various points of waste in sulphite mill operation, it appeared to us that the biggest returns could be secured for the least expenditure by reducing the wasting of wood and particularly in chipper operation. With this point in view a detailed study was made, not only at the Rumford Mill but at all other mills in the Company, of the effect of the various factors on the production of sawdust. It was first essential that some means be developed which would permit us to secure a continuous record of sawdust removed from the chips. This piece of equipment has been in continuous operation now for over two years and has enabled us to keep a continuous record of the effect of various changes. It will be described later in the paper.

We have two 88-inch four-knife Carthage chippers, which were originally operating at 285 r.p.m. On one of the chippers we are using a flat type bed knife and the other is equipped with the Andrews type bed knife. Our experience with these two different types of knives has shown that we get more operating hours from the Andrews type of knife.

For efficient chipper operation the bed knife should be set so that the clearance between the disc knife and the bed knife will be as small as possible. In our case we have found that $\frac{1}{16}$ inch is as close as we can get to the bed knife and not have the disc knives striking. We are going to install a new disc and spout in one of our chippers, and are to try out a new feature just developed, a safety device for preventing any possibility of the disc knife striking the bed knife. The effect of this device on the operator will be beneficial in that he will not be afraid to set the disc up for very close clearance. The device consists of two rings extending from the surface of the disc exactly the same distance as the knives and placed to almost touch the inner and outer ends of the knives. These rings correspond in position to two bearing surfaces, which are screwed onto the spout base and spout just at the point where bed knife protrusion is the greatest. The operator sets his bed knife out so that its point of farthest protrusion comes exactly up to this farthest point on the bearing surface. The safety feature of this device is that if anything should cause the disc to jog too close to the spout

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[1] Sulphite superintendent, Continental Division, International Paper Company, Rumford, Maine.

these rings would hit the bearing surface and prevent the knives from clashing.

The chips are delivered to a rotary chip screen, known as the Lombard rotary screen. It is 6 feet 2 inches in diameter by 45 feet long, and operated at 19 r.p.m. It is divided into nine 5-foot sections. The first five sections are made up of 3 and 3½ mesh No. 16 gauge wire to take out the sawdust. The last four sections are made up of 1⅛ x 1½-inch openings to take out the accepted chips. The screen has a rated capacity of 100 cords per eight-hour day.

The sawdust rejected by the rotary screen is passed over a small shaker screen. This screen is 4 x 9 feet and operated at 260 vibrations per minute. The screening surface is divided into two sections—the upper plates being 5-16-inch perforations and the lower having 5-32-inch perforations. The accepted chips are delivered to the chip loft and the sawdust from this screen goes to the boiler house. Between the screen and refuse conveyor we have installed an automatic device to measure and record the quantity of sawdust rejected from the screen. This device consists of a box made up of galvanized iron 14 inches square x 16 inches deep. Over this box are two wood beams and the measuring box is anchored to these beams by hooks. At the other end of beams is a counter weight box with a support under it to hold box in place. In the center of beams is a pivot. The measuring box has a dump bottom with a weight so that bottom will swing back into position when sawdust has dumped. Attached to the sawdust spout from the screen is a bent piece of steel bar and hanging on a pivot under this is another piece of steel bar with a weight on it. This piece of bar comes up under bottom of measuring box so as to hold bottom of box in position until container fills up and the weight of sawdust disengages steel bars, allowing the container to empty. On the under side of the counter weight box is fastened a piece of ordinary belting and under the piece of belt is a counter such as is used when counting wood. When the container becomes full it swings on the pivot and the belt on the counter weight box contacts with the counter, recording the dumping of the container.

By knowing the amount of wood going to the chippers and the sawdust produced, we readily determine the percentage of loss from sawdust. Before developing this measuring device, we had no way of determining the amount of sawdust being produced during a full day's operation. A few days of operating with this sawdust recorder convinced us that an excessive amount of sawdust was being produced. It was then decided to slow chippers from 285 to 200 r.p.m. as the amount of wood being handled was small on account of having to clean the wood, and at this high speed we could not keep the chipper supplied with a full load. Without a full load the wood was jumping in chipper spouts, making sawdust and un-uniform chips. At this lower speed there was a very noticeable decrease in sawdust. After running this way for one week, we decided to go still further, and the chippers were slowed to 185 r.p.m. Again a substantial decrease in sawdust was noted and there was a very gratifying increase in the size and uniformity of chips. At this time it was decided that there could not be any further reduction in chipper speed, but it was evident that there was room for improvement.

It had been our practice to start up with freshly ground knives at 7:00 A. M. These knives were filed at 10:00 A. M., replacing with freshly ground set at 1:00 P. M. and filed again at 3:00 P. M. An accurate hourly record of wood consumed and sawdust produced was made and computed. The percentage of sawdust loss increased as the knives became dull and the fact that these knives were filed at 10:00 A. M. and 3:00 P. M. did not greatly reduce o. slow up the increase in sawdust loss. The following ar. results obtained from test made while running in this manner:

At the end of the first hour a slight increase in sawdust was noted. After two hours' operation tests showed that sawdust had increased 50 per cent, and at the third hour or the time when the knives were to be filed, the amount of sawdust had doubled over what it was at the first hour.

One hour after filing knives tests showed that the sawdust production curve had not dropped back to the point where it had been one hour after freshly ground knives were installed. Two hours from the filing time the amount of sawdust being produced had increased 80 per cent over what it was at the time chippers were shut down to file the knives. After operation in this manner for a few days, we changed our method to the following:

Freshly ground knives were installed at 7:00 A. M., 10:00 A. M., 1:00 P. M., and 3:00 P. M. and our tabulations showed the following results. The increase in the amount of sawdust being produced the first three hours was approximately the same as for the first three hours on previous test. However, after 10:00 A. M., or the time freshly ground knives were set in, the curve, instead of continuing to climb, dropped back to the starting point and in the following two hours did not come up to the point it had reached at 10:00 A. M. This was the case on all tests that were made while operating in this manner; clearly proving that by changing knives at 10:00 A. M. and 3:00 P. M. instead of filing there was a very decided decrease in the amount of sawdust produced. We are convinced that the extra grinding of the chipper knives necessitated by the more frequent grinding does not decrease the life of the knives to any great extent. The loss in time caused by the more frequent changing of the knives is more than compensated by the reduction in sawdust produced.

Chip Crusher

To break cards from chippers up into acceptable chips, we operated a Lombard chip crusher operating at 1,180 r.p.m. directly after the chippers and passed all of the chips through this crusher. It was our conviction that this crusher was the cause of some of the sawdust being produced, so was replaced with the pin type of chip breakers, which are located on the discharge side of chipper discs at a point just below location of bed knife. These chip breakers operate at 1,825 r.pm., smashing the cards up into acceptable chips. This replacement of equipment did not increase the rejects of large chips from the chip screen, nor increase the load on rechipper to any great extent. Tests showed that with this pin type breaker the chips were larger and more uniform in size, and that a decrease of approximately 50 per cent in the amount of sawdust produced was noted than when operating with the Lombard crusher. Although these tests spread over a considerable period of time and meant a small expenditure of money, we were more than repaid in wood savings and cleanliness of pulp.

Chip Packer

One other piece of equipment that you may be interested in is a chip packer. This chip filling device can be run on a track on the floor in the digester house or suspended from an overhead trolley. This piece of equipment includes a high speed fan operating at 3,500 r.p.m., and mounted in such a way that it may be moved the full length of the digester building and available for all digesters. The

fan is operated by an 80-horsepower motor. The filler will rotate in a full circle and will operate in any position of rotation, and in addition a vertical adjustment is provided. When filling a digester, the base of the filler must rest on the top of the drop pipe or tube entering the digester neck. This tube which is a separate piece from the packing proper, is supported by a top flange which rests on the digester flange with a felt seal. In our case we had to construct a filler to fit in between the base of the packer and the neck of the digester on account of heads being low. The length and diameter of the drop pipe must be proportioned to the length and diameter of the neck and digester for proper operation. When starting to fill a digester, we first place the packing equipment over the neck of the digester so that the chips from chip loft run through the tube that extends into the neck. The fan draws the air from the digester and discharges into tube through which chips pass. The velocity of air as it leaves the end of the tube distributes the chips over the full area of the digester, causing them to lay evenly over the surface instead of piling in the center.

It has been found that when using this chip filling device, the amount of air going in with the chips should be regulated so that the wood will be as evenly distributed as possible. We have also learned by experience that the chips should be slightly higher on the sides than in the center, otherwise we have trouble getting the digesters to blow clean. The operation of the filler should be watched very closely near the end of the filling time so that the motor will be shut down when chips start to pull back into fan, in order not to fill drop pipe, although the only harmful effects being increased wear on propeller from contact with chips. The filling time when using the packer is somewhat increased over the time of charging directly from hoppers. Charging direct from hoppers, the total filling time was 40 to 45 minutes and when using filler it is one hour and ten minutes.

In charging the digesters with this filler, the moisture content of wood has to be watched very carefully, as any great change in moisture will have to be compensated for by the amount of air used. For instance, if we are using wood with a moisture content of between 45 and 50 per cent, there is a certain amount of air going into digester neck. Should the moisture content drop to 35 per cent or under, the amount of air will have to be decreased. The reason for this is that wood with a low moisture content being charged with a high amount of air will force the chips to the edges of the digester and the amount of chips packed into the digester would be greatly decreased. Experience has shown us that when we are getting 22 per cent increased capacity, and the wood dropped from 50 per cent moisture content to 32 per cent that if we did not change the amount of air, the increase in capacity was reduced to between 5 and 8 per cent. The same principle will apply in changing from dry to wet wood as more air will have to be admitted with wet chips to get increased capacity. To regulate the amount of air being admitted with the chips there is a large damper on suction side of fan. When the wood is wet, this damper is opened so there will be more air to distribute the chips. At the bottom of the base of the filler is another damper, which has to be opened to relieve the expelled air in digester. If this damper is not opened, the chips will not have a clear passage through the tube extending into the digester neck, thereby slowing the filling time. We have found that when wood is dry these dampers should be left closed, and the outlet located on discharge of fan should be kept open in order to reduce the amount of air being admitted with the chips.

When we started using this filler the amount of lime in acid had to be increased, but not in direct proportion to the increase in digester capacity. This resulted in a savings of approximately 5 per cent of lime. We are getting an increase in digester capacity of 20 to 22 per cent and the lime in acid was increased approximately 16 per cent. Care had to be exercised to keep the desired combined. The effects of any lowering of the combined were immediately noticeable in the pulp. For steam we show a saving almost in direct proportion to the extra yield together with a 10 per cent reduction in sulphur. The pulp slightly increased in chlorine number with an approximate 5 per cent increase in strength.

New TAPPI Members

The executive committee of the Technical Association of the Pulp and Paper Industry announce the following elections to membership:

William F. Allen, chief chemist of the Pulp and Paper Laboratory of the Industrial Committee of Savannah, Ga., attended the University of Florida and Furman University, and was formerly a research associate at the Bureau of Standards, Washington, D. C., for the Binders Board Manufacturers Association and the National Research Council.

Roy W. Holden, salesman for Stowe-Woodward, Inc., Kalamazoo, Mich., formerly associated with the Jewell Belting Company, Hartford, Conn., and D. P. Brown & Co., Chicago.

Charles H. Kent, special representative, Paper Makers Chemical Corporation, New York, N. Y., is a 1910 graduate of Dartmouth College. Mr. Kent was associated with the Kalbfleisch Corporation, Waterbury, Conn., from 1924-1927. From 1927-1933 he was president of Mansfield, Bolton & Kent, Inc., New York, and in 1933-1934 he was sales manager of the American Delthirna Corporation, New York.

Stephen I. Kukolich, research chemist, Neenah Paper Company, Neenah, Wis., is a 1931 graduate of Grinnell College and in 1932 received his Master's degree from the Institute of Paper Chemistry.

Ralph M. Leighton, chemist, Stowe-Woodward, Inc., Newton Upper Falls, Mass., is a 1918 graduate of the University of Maine and was formerly a chemist for the Brown Company, Berlin, N. H., and the Hood Rubber Company, Watertown, Mass.

Leon E. Smith, chief engineer, Lodding Engineering Company, Worcester, Mass., is a graduate of the Wentworth Institute, Boston, Mass., and was formerly a draftsman for the Norton Company, and Rice, Barton & Fales, Inc., of Worcester, Mass.

Fletcher P. Thornton, vice-president and treasurer of the W. E. Greene Corporation, New York. Mr. Thornton was manager of the New York branch of the Gandy Belting Company for fourteen years, and was also New York manager of the Boston Belting Company.

H. L. Kutter Gets Paper Machinery Patent

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, July 2, 1934—Herman L. Kutter, widely-known in the manufacturing world, on June 28 was granted a patent for paper machinery, on an application more than a year old, filed April 8, 1933.

Mr. Kutter, who has figured conspicuously in the manufacture of paper-making machinery in Hamilton for many years, was allowed ten claims for new ideas in connection with his invention.

The patent has been assigned for manufacture to the Black-Clawson Company at Hamilton.

Paper Trade Classifies Products and Sales In Connection with Labor Wage Allowances

A. W. Leslie, chairman of the Code Authority of the Paper Distributing Trade has just sent out the following bulletin to the members of the paper trade:

Supplementing our Bulletin dated June 8, 1934, regarding the allowance for the wages of labor to be added to replacement cost, pursuant to an order of Hugh S. Johnson, Administrator for Industrial Recovery, dated June 7, 1934, we are attaching herewith, lists of those papers and paper products classified either under the Fine Paper Division or the Wrapping Paper Division.

The following definitions of "Warehouse," "Indirect," and "Direct" sales are also to be used in guiding members of the Paper Distributing Trade in respect to the application of the allowances of the wages of labor over replacement costs:

"WAREHOUSE" sale is a sale made by a merchant from the merchant's own stock; or from the stock of a public warehouse; or from the stock of a mill operated warehouse; or from another merchant's warehouse stock.

"INDIRECT" sale is a transaction involving a specific order placed with the manufacturer for mill shipment and handled by the merchant or his agent at some point between the origin of shipment and the place of delivery.

"DIRECT" sale is a transaction involving a specific order placed with the manufacturer for mill shipment direct to the merchant's customer or the designated place of delivery.

Papers Classed Under Fine Paper Division

The stipulation of the items below as constituting the papers and/or paper products included in the above division should not be taken to exclude other items commonly considered to be comprehended in this division.

Announcements
Bible Paper
Blanks (Coated & Uncoated)
Blottings (Plain, Coated and Embossed)
Blue Print Papers
Boards (Plain, Patent Coated & Coated)
Bogus Bristols and Tags
Bond Papers (All grades)
Book Paper (All grades)
Booklet Envelopes
Box Coverings
Bristols—Index (All grades)
Bristols—(Printing, Writing & Posting)
Car Signs
Carbon Tissue
Cellular Board
Chip Board
Cloth Lined Board
Cloth Lined Papers
Copying Paper
Covers (All grades)
Cut and Boxed Papers
Cut Cards
Die Wiping Papers
Document Manila
Drawing Papers
Duplicating Papers
Envelopes (Catalog)
Envelopes (Clasp)
Envelopes (Commercial & Official)
Envelopes (Document)
Envelopes (Pay & Coin)
Envelope (Postage Saver)
Envelope (String & Button)
Envelope (Wood)
Envelope Papers
French Folios
Glazed Papers
Glassine
Greeting Cards & Papers
Ground Wood Content Papers
Gummed Papers
Japan Papers (All grades)
Label Papers
Ledgers (All grades)
Linens
Lithocoated Papers
Lithograph Papers
Makeready Tissue
Manifolds
Manila Writings
Marble Board
Metallic Papers
Mimeograph Papers
News Board
News Print
Offset Papers
Onion Skins
Photo Gelatine Papers
Photogravure Papers
Photo Mount Papers
Plated Papers
Poster Papers
Press Board
Proofing Paper
Railroad Writing
Rope Bristols
Rotogravure Papers
Ruled Headings
Safety Papers (Chemical)
Safety Papers (Plain)
Sample Card Bristols
Stationery
Steel Engravers' Papers
Stencil Board
Tablet Papers (All grades)
Tags (Groundwood, Bogus, Bleached, and Unbleached Sulphite, Manila, Jute and Rope)
Text Papers (All grades)
Thick China
Thin Papers for Writing & Printing
Tough Check
Translucent Bristols
Tympan Papers (Plain & Treated)
Typewriter Papers
Vellums (All grades)
Wedding Papers (All grades)
Wood Board
Writings (All grades)
Writing & Printing Imitation Parchments

Paper and Paper Products Classed Under Wrapping Division

The stipulation of the items below as constituting the papers and/or paper products included in the above division should not be taken to exclude other items commonly considered to be comprehended in this division.

Absorbent Paper
Adding Machine Rolls
Anti-Rust, Anti-Tarnish Paper
Anti-Tarnish Tissue
Bags (Automobile)
Bags (Bakery)
Bags (Banana)
Bags (Blanket)
Bags (Bread)
Bags (Broom)
Bags (Candy)
Bags (Cap)
Bags (Carton)
Bags (Carrybags)
Bags (Cellophane)
Bags (Cement)
Bags (Chair)
Bags (Charcoal)
Bags (Chemical)
Bags (Cigar)
Bags (Coal & Coke)
Bags (Coffee)
Bags (Collar)
Bags (Confectionery)
Bags (Doughnut)
Bags (Dress)
Bags (Dry Cleaners')
Bags (Duplex)
Bags (Furniture)
Bags (Garbage)
Bags (Garment)
Bags (Glassine)
Bags (Glove)
Bags (Grocers')
Bags (Hat)
Bags (Hosiery)
Bags (Laundry)
Bags (Mattress)
Bags (Millinery)
Bags (Moth Proof)
Bags (Nail)
Bags (Notion)
Bags (Parchment)
Bags (Peanut)
Bags (Potato Chip)
Bags (Poultry)
Bags (Record)
Bags (Sandwich)
Bags (Seeds)
Bags (Shirt)
Bags (Shopping)
Bags (Specialty)
Bags (Spices)
Bags (Storage)
Bags (Stove)
Bags (String & Button)
Bags (Sugar)
Bags (Tea)
Bags (Tobacco)
Bags (Tool)
Bags (Waterproof)
Bags (Wet Wash)
Baking Cups
Barbers' Headrest Rolls
Barrel Covers
Barrel Linings
Basket Covers (Corrugated)
Basket Liners
Battery Pasting Paper
Beaming
Berry Boxes
Bisque Cases
Blasting Paper
Bon Bon Cups
Bottle Caps
Bottle Wrappers
Bottles (Paper)
Boxes
Bread Wrappers
Broom Covers
Burlap Lined Paper
Butchers' Wrappings
Butter Chips (Paper)
Butter Dishes (Paper)
Butter Wrappers
Cake Bands
Cake Circles
Cake Cups
Cake Dollies
Cake Pan Liners

Cake Wrappers
Calendar Stock
Candy Box Liners
Candy Dipping Paper
Candy Dividers
Candy Sticks (Wood)
Candy Wrappers
Can Linings
Cans, Liquid Tight (Paper)
Cap Paper
Car Linings
Cartridge Paper
Casket Paper
Charlotte Russe Cups
Chocolate Layer Board
Chocolate Dipping Paper
Chop Holders
Cleaning Tissue
Collar Circles
Confectioners' Papers
Confetti
Cookery Parchment
Corrugated Board
Crepe Paper Conversion
Crepe Paper (Waterproof)
Cuspidors (Paper)
Diapers (Baby)
Dishes, Baking (Paper)
Dress Shields
Drug Wrappings
Duplex Papers
Egg Carriers
Egg Cartons
Egg Case Fillers
Electrical Conduit Twines
Electrical Insulating Paper
Excelsior (Paper)
Excelsior Pads
Express Wrapping
Filter Paper
Finger Bowl Liners
Fire Alarm Tape
Fire Proof Crepe
Fish Paper
Florist Crepe Paper
Florist Tissue
Fruit Wraps
Gasket Stock
Glassine Bags
Glassine Envelopes
Glassine (Bleached and Unbleached)
Glassine (Embossed)
Glassine (Window Envelope)
Glassine Wrappers
Granite Papers
Greaseproof
Grocery Bags
Guide Stock
Ham Paper
Hardware Wrapping
Hot Liquid Cups
Household Rolls
Ice Cream Cone Holders
Ice Cream Containers (Paper, Liquid Tight)
Ice Cream Spoons
Indented Packing Paper
Insulating (Electrical)
Jelly Cups
Kraft
Kraft Tissue Paper
Lard Wraps
Laundry Paper
Lunch Rolls (Waxed Paper)
Luncheon Sets
Macaroni Wrapping
Mailing Wrappers
Manila Tissue
Manila (Wrapping)
Megaphones
Milk Bottle Caps
Moth Proof Bags
Moth Proof Paper
Muffin Cups
Mulch Paper
Napkins (Crepe Paper)
Nut Cups
Oyster Pails
Pail Laces
Pails (Ice Cream)
Pails (Oyster)
Paper Bottles
Paper Dishes
Paper Forks
Paper Hats
Paper Holders
Paper Plates
Paper Spoons
Paper Towels
Paraffined Paper
Parchment (Shredded)
Parchment (Vegetable)
Pattern Board
Pattern Paper
Pattern Tissue
Pie Collars
Pine Paper
Pleating Paper
Poultry Bands
Printed String
Rag Wrapping
Ribbon Rolls
Sacks (Paper)
Sales Books
Sanitary Napkins
Saturating Paper
Screenings
Sealing Tape
Seaming Cord
Serpentines
Sheathing
Shelf Paper
Shingles (Asphalt)
Shirt Bands
Shirt Boards
Shirt Envelopes
Silk Wrappers
Slippers (Paper)
Small Paper Rolls
Soap Wraps
Soda Cups
Soda Straws
Souffle Cups
Sputum Cups
Sputum Handkerchiefs
Streamers (Crepe Paper)
String Inserted Paper
Sundae Dish Liners
Table Covers (Crepe Paper)
Tape (Gummed)
Tissue (Fancy Wrapping)
Tissue (Florist)
Tissue (Kraft)
Tissue (Machine Glazed)
Tissue (Manila)
Tissue (Nitrating)
Tissue (Pleating)
Tissue (Shoe)
Tissue (Shredded)
Tissue (Silver)
Tissue (Stereotype)
Tissue (Toweling)
Tissue (Twisting)
Tissue (Unbleached)
Tissue (Waxing)
Tissue (Wrapping)
Tissue (Excelsior)
Toilet Paper
Toilet Seat Covers
Tortoni Cases
Towellings (Paper)
Towels (Paper)
Tray Covers
Vegetable Parchment (Genuine)
Water Finish
Watermarked Wrapping
Wrappings (Sulphite and Sulphate)

Paper Trade Defines Published Prices

Article X—Section 6 reads:

"No member of the Trade shall secretly offer or make any payment or allowance of a rebate, refund, commission, credit, unearned discount or excess allowances whether in the form of money or otherwise, *nor shall a member sell below published prices* for terms, or secretly offer or extend to any customer any special service or privilege not extended to all customers of the same class, for the purpose of influencing a sale."

The Administrator has said that the term "Published Prices" refers to open and notorious prices, such as price lists, whether or not filed in price reporting plan. Published prices are such as those given the Trade through printed price lists or price lists furnished to salesmen from which they quote the trade.

The purpose of this provision is to protect legitimate paper merchants from the dangerous practice of issuing price lists for the Trade to rely upon, and then allowing special rebates, discounts or other services or privileges to customers of the same class.

There is nothing in this Section which will prevent the members of the Trade from changing his price list as often as he likes, but it is unfair for the price lists not to be changed for all customers of the same class.

To safeguard against changes in price to suit temporary convenience is to require the distribution of the change in accordance with usual practices in affecting bona fide changes. In other words—a change in published prices is made sufficiently public if the change is effected in a way common to a well managed paper house.

Bids for Government Paper

The Government Printing Office on June 29 received the following bids for 40,000 lbs. of chip board: Virginia Paper Company at .01751 cents per pound; Cauthorne Paper Company, .01787 cents; R. P. Andrews Paper Company, .17833 cents; Barton, Duer & Koch Paper Company, .01825 cents; Whitaker Paper Company, .0177 cents; Reese & Reese, Inc., .0186 cents; Walker Goulard Plehn Company, Inc., .01775 cents; J. W. Butler Paper Company, .0221 cents and the Latboiteaux Company, .01975 cents.

The following bids were received for 10,000 pounds of Green sulphite writing: Aetna Paper Company, .0654 cents per pound; R. P. Andrews Paper Company, .0654 cents; Whitaker Paper Company, .0654 cents; Barton, Duer & Koch Paper Company, .0654 cents; Cauthorne Paper Company, Inc., .0654.

Breaks Record for Paper Shipments

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, June 11, 1934—All records for paper shipments have been broken in the Miami Valley for the fourth consecutive month, according to officials of the Miami Valley Shippers' Association, with headquarters in Middletown.

The Association reported the past week that 4,250,000 pounds of paper were shipped by the Middletown mills during the month of May. The previous high for the month had been 2,400,000 pounds.

Shipments have steadily increased each month since February and the figures tell a tale of rturning prosperity such as can be related in no equally effective manner. The Paper City mills have been running with great regularity on most substantial orders, as the figures reflect.

IMPORTS OF PAPER AND PAPER STOCK

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING JUNE 30, 1934

CIGARETTE PAPER

De Mauduit Paper Corp., Leviathan, Havre, 101 cs.; Champagne Paper Corp., Paris, Havre, 1111 cs.; American Tobacco Co., Washington, Havre, 130 cs.

WALL PAPER

———, Columbus, Bremen, 2 cs.; S. K. Lonegren, Kungsholm, Gothenburg, 3 cs.; ———, Washington, Havre, 10 cs.; F. J. Emerich, A. Ballin, Hamburg, 1 ble., 2 cs.

PAPER HANGINGS

W. H. S. Lloyd & Co., American Banker, London, 1 cs., 1 ble.

NEWSPRINT

Star Co., St. Therese, Quebec, 2332 rolls; ———, Bergensfjord, Oslo, 720 rolls; Karr Ellis Co., Inc., Tercero, Port Alfred, P. Q., 542 rolls; Gilman Paper Co., Tercero, Port Alfred, P. Q., 1022 rolls; American Jewish Publishing Corp., Tercero, Port Alfred, P. Q., 411 rolls; H. G. Craig, Donnacona, 2, Montreal, 581 rolls; Perkins Goodwin & Co., A. Ballin, Hamburg, 474 rolls.

PRINTING PAPER

International F'd'g Co., E. Francqui, Antwerp, 15 cs.; E. Dietzgen & Co., American Banker, London, 39 rolls; Steiner Paper Corp., Statendam, Rotterdam, 6 cs.; Senefelder Co., Inc., A. Ballin, Hamburg, 20 cs.; Winsor Newton, Inc., Franconia, Southampton, 1 cs.; S. H. Pomerance, Franconia, Southampton, 3 cs.

WRAPPING PAPER

F. C. Strype, E. Francqui, Antwerp, 11 cs.; Japan Paper Co., Westernland, Antwerp, 2 cs.; Van Oppen & Co., Excambion, Genoa, 10 cs.

SURFACE COATED PAPER

Globe Shipping Co., Columbus, Bremen, 10 crates; Gevaert Co. of America, Westernland, Antwerp, 49 cs.

METAL PAPER

Stone & Downer Co., Washington, Hamburg, 6 cs.

METAL COATED PAPER

K. Pauli Co., A. Ballin, Hamburg, 55 cs.

PACKING PAPER

Chase National Bank, A. Ballin, Hamburg, 261 rolls.

COLORED PAPER

International F'd'g Co., A. Ballin, Hamburg, 3 cs.; P. H. Petry & Co., Columbus, Bremen, 8 cs.

TISSUE PAPER

Atlantic F'd'g Co., A. Ballin, Hamburg, 10 cs.

FILTER PAPER

H. Reeve Angel & Co., Inc., American Banker, London, 6 cs.; H. Reeve Angel & Co., Inc., Olympic, Bordeaux, 39 cs.

DRAWING PAPER

H. Reeve Angel & Co., Inc., American Banker, London, 2 cs.

BRISTOL BOARDS

Devoe & Raynolds Co., American Banker, London, 2 cs.

DECALCOMANIAS

Sellers Transportation Co., Columbus, Bremen, 6 cs.; Sellers Transportation Co., Bremen, Bremen, 25 cs.; L. A. Consmiller, Bremen, Bremen, 2 cs.

TRANSFER PAPER

Rohner Gehrig & Co., Bremen, Bremen, 5 cs.

GUMMED PAPER

Heemsoth Basse & Co., Bremen, Bremen, 8 cs.

WOOD PULP PAPER

A. Giese & Son, Statendam, Rotterdam, 21 bls.

MARBLE PAPER

Borden Riley Paper Co., E. Francqui, Antwerp, 5 cs.

CARD BOARD

American Express Co., A. Ballin, Hamburg, 30 cs.

PASTEBOARD

De Grauw Aymar & Co., Exminster, Genoa, 30 bls.; Flexideal, Columbus, Bremen, 18 cs.; D. M. Hicks, Inc., E. Francqui, Antwerp, 76 bls.

STRAW PAPER

———, Black Falcon, Rotterdam, 1000 pkgs.

MISCELLANEOUS PAPER

———, Columbus, Bremen, 5 cs.; M. M. Cohen, Kungsholm, Gothenburg, 9 bls., 180 rolls; The Borregaard Co., Inc., Kungsholm, Gothenburg, 72 rolls; Blauvelt Wiley Paper Manfg. Co., Kungsholm, Gothenburg, 16 rolls; Na-

tional City Bank, Hokuroko Maru, Yokohama, 6 cs.: F. C. Strype, Statendam, Rotterdam, 2 pkgs.; Walker Goulard Plehn Co., Statendam, Rotterdam, 12 bls.; Keuffel & Esser Co., Washington, Hamburg, 17 cs., 18 rolls; Japan Paper Co., Washington, Hamburg, 5 cs.

RAGS, BAGGINGS, ETC.

A. M. Millon, M. de Comillas, Havana, 24 bls. rags; ———, Black Falcon, Rotterdam, 50 bls. cotton waste; J. Cohen Son Co., American Banker, London, 10 bls. rags; G. A. Henshaw & Son, Clairton, Belfast, 120 bls. paper stock; ———, Excambion, Alexandria, 160 bls. rags; E. J. Keller Co., Inc., A. Ballin, ———, 17 bls. rags; E. J. Keller Co., Inc., Western Prince, ———, 47 bls. paper stock; Harris Goldman Co., Statendam, Rotterdam, 21 bls. waste paper; ———, Franconia, Southampton, 32 bls. rags.

BONE GLUE

———, A. Ballin, Hamburg, 100 bags.

CASEIN

D. C. Andrews & Co., A. Ballin, Hamburg, 50 bags.

WOOD PULP

D. M. Hicks, Inc., Kungsholm, Gothenburg, 60 bls. sulphite; J. Andersen & Co., Kungsholm, Gothenburg, 125 bls. sulphite; Price & Pierce, Ltd., Kungsholm, Gothenburg, 500 bls. sulphite; Price & Pierce, Ltd., Kungsholm, 570 bls. chemical pulp; N. Y. Trust Co., Black Falcon, Rotterdam, 783 bls. wood pulp, 163 tons; The Borregaard Co., Inc., Bergensfjord, Oslo, 336 bls. sulphate; Chemical Bank Trust Co., Bergensfjord, Oslo, 450 bls. sulphite; Guaranty Trust Co., Saturnia, Trieste, 361 bls. wood pulp; Castle & Overton, Inc., Statendam, Rotterdam, 540 bls. wood pulp; Price & Pierce, Ltd., Heroy, Hernosand, 1500 bls. sulphate, 250 tons; Price & Pierce, Ltd., Hero, Hernosand, 900 bls. sulphite, 150 tons; E. M. Sergeant & Co., Heroy, Hernosand, 600 bls. sulphite, 100 tons; Castle & Overton, Inc., A. Ballin, Hamburg, 435 bls. wood pulp, 87 tons; Bank of N. Y. Trust Co., A. Ballin, Hamburg, 515 bls. wood pulp, 103 tons.

ALBANY IMPORTS

WEEK ENDING JUNE 30, 1934

Price & Pierce, Ltd., Heroy, Hernosand, 2190 bls. sulphate, 365 tons; Price & Pierce, Ltd., Heroy, Hernosand, 3000 bls. sulphite, 500 tons.

PORTLAND IMPORTS

WEEK ENDING JUNE 30, 1934

E. M. Sergeant & Co., Heroy, Hernosand, 2100 bls. sulphite, 350 tons; Bulkley Dunton & Co., Heroy, ———, 2500 bls. wood pulp, 500 tons; M. Sone, Lagaholm, Gothenburg, 127 bls. wood pulp.

BOSTON IMPORTS

WEEK ENDING JUNE 30, 1934

E. Butterworth & Co., Inc., Clairton, Glasgow, 41 bls. waste paper; G. M. Graves Co., Clairton, Glasgow, 22 bls. rags; G. W. Millar & Co., Inc., Clairton, Dublin, 49 bls. paper stock; International Purchasing Co., Excambion, Genoa, 168 coils old rope; ———, Steel Mariner, Port Alice, B. C., 5700 bls. wood pulp; M. Sone, Haimon, Hamburg, 200 bls. wood pulp; M. Sone, Capulin, Hamburg, 327 bls. wood pulp.

PHILADELPHIA IMPORTS

WEEK ENDING JUNE 30, 1934

———, Haimon, Hamburg, 66 bls. rags; Bank of N. Y. Trust Co., Haimon, Hamburg, 280 bls. wood pulp; Castle & Overton, Inc., Haimon, Hamburg, 950 bls. wood pulp; Irving Trust Co., Toledo, Oslo, 1200 bls. wood pulp; The Borregaard Co., Inc., Toledo, Hurum, 1200 bls. sulphite; Chemical Bank Trust Co., Toledo, Tofte, 900 bls. sulphite; Irving Trust Co., Toledo, Drammen, 2840 bls. mechanical pulp; ———, Toledo, Drammen, 205 rolls newsprint; E. J. Keller Co., Inc., Black Tern, ———, 1035 bls. paper stock.

BALTIMORE IMPORTS

WEEK ENDING JUNE 30, 1934

E. M. Sergeant & Co., Heroy, Hernosand, 4350 bls. sulphite, 725 tons; E. M. Sergeant & Co., Heroy, Hernosand, 6300 bls. sulphate, 1050 tons; Congoleum Nairn Co., Exminster, Naples, 160 bls. rags; Congoleum Nairn Co., Exminster, Marseilles, 87 bls. rags.

MOBILE IMPORTS

WEEK ENDING JUNE 30, 1934

———, Haimon, Hamburg, 435 rolls newsprint; R. Meyer & Co., Haimon, Hamburg, 53 coils old rope.

NEW ORLEANS IMPORTS

WEEK ENDING JUNE 30, 1934

Bush & Witherspoon Co., Haimon, Hamburg, 334 bls. bagging.

CHARLESTON IMPORTS

WEEK ENDING JUNE 30, 1934

Manufacturers Trust Co., Hokuroko Maru, Shanghai, 207 bls. bagging.

HOUSTON IMPORTS

WEEK ENDING JUNE 30, 1934

E. J. Keller Co., Inc., Syros, ———, 120 bls. bagging.

Continental Paper Grading Co. Expands

In order to better serve its various customers and paper mills, the Continental Paper Grading Co., Chicago, is now consolidating its various grading plants and warehouses under one roof.

Located at 1445-57 S. Peoria street, since 1913, the company has steadily expanded, taking over additional space in various locations in the city; but with the advent of the "New Deal" and the NRA together with the thought to always be first with the latest in service and plant operations, they have lost no time in making the change to its new quarters at 1623 Lumber street, Chicago.

The building at 1623 Lumber street is located on the Chicago River and has complete dockage facilities for shipments by boat. The building is so arranged as to have siding for 15 freight cars. With a total area of 126,000 square feet, and with the addition of hydraulic baling presses, dusters, electric conveyors, together with its complete fleet of trucks and trailers, the company will be able to handle efficiently 200 tons per day.

Under these conditions the company will be better able to service its various sources of supply and also be able to ship its various mill connections finished and graded stock in any amounts and tonnages; by truck, freight car or boat.

The Continental Paper Grading Company was started originally by the late I. Sandroff, and is now carried on by his three sons-in-law, Arnold Epstein, E. B. Bernsen, and H. L. Goldman.

New York Market Review

Office of the PAPER TRADE JOURNAL,
Tuesday, July 3, 1934.

Conditions in the local paper market are normal for the season. Demand for the various standard grades of paper is moderately active. While the warm weather and the holidays are affecting trading to some extent the outlook for the closing months of the year is bright. Prices are generally well sustained.

The newsprint paper market is exhibiting a strong undertone. Demand from the publishers is insistent. Advertising volume and circulations continue ahead of the corresponding period last year. Manufacturing operations in the United States and British North America are proceeding in good volume.

Business in the fine paper market is slow. Demand for book and cover papers is irregular. Writings are dull. Ground wood papers, on the other hand, are in better request. Tissues are moving listlessly. The coarse paper market is displaying strength, with summer specialties seasonally active. The paper board market is steady.

Mechanical Pulp

The position of the ground wood pulp market is practically unchanged. Production in North America and abroad is being maintained in sufficient volume to take care of current requirements and the industry is statistically sound. Prices are generally holding to previously quoted levels.

Chemical Pulp

Steadiness prevails in the chemical pulp market, with supplies of imported pulp continuing to arrive in good volume. Domestic and foreign bleached sulphite is still quoted at from $2.75 to $2.85, according to grade. Demand for kraft pulp is holding up well and quotations are quite firm.

Old Rope and Bagging

No radical changes have transpired in the old rope market. Paper mill demand for domestic and imported old manila rope is restricted. Small mixed rope is dull. Old rope prices are unchanged. The bagging market has improved slightly. Scrap bagging is firmer. Gunny bagging is steady and roofing bagging is in seasonal request.

Rags

The domestic rag market continues to mark time, with the absence of any sustained paper mill interest. New cotton rags are quiet at present. Export demand for No. 1 white shirt cuttings and fancy shirt cuttings is fairly persistent. Roofing grades are displaying seasonal request. Prices are practically unchanged.

Waste Paper

With collections of the lower grades of paper stock curtailed, the position of the waste paper market is strengthened. Board mill demand is dormant, as usual at this time of the year, but should improve in the near future. The higher grades of waste paper are as steady as can be expected.

Twine

Most of the business transacted in the local twine market during the past week was along routine lines. Demand for the various varieties of twine is fairly active considering the hot weather and the vacation period. Despite keen competition for desirable orders, prices are steady and shading is infrequent.

Open Paper Drinking Cup Industry Seeks Approval of Code Budget

The National Recovery Administration today announced receipt of requests from the Code Authority of the open paper drinking cup and round nesting paper food container industry for approval of its proposed budget and basis of contribution by industry members, and for permission to modify the code to the extent of authorizing the Code Authority to incur, and bill members of the industry for, reasonable obligations connected with its administrative work.

The total amount of the proposed budget, for the period from May 1, 1934, to April 31, 1935, is $42,120.

The basis of contribution would be one-half of one per cent (½ of 1%) of net sales, to be billed to members of the industry monthly, based on the previous month's net sales.

Notice was given that any criticisms of, objections to or suggestions concerning any of these above cited requests of the Code Authority must be submitted to Deputy Administrator W. W. Pickard, Room 209, National Savings & Trust Building, Washington, D. C., prior to July 11, 1934.

Appointment of C. Leo Oredman, secretary-treasurer of the Mead Paper Sales Co., New York City, as Administration member of the Code Authority for the open paper drinking cup and round nesting paper food container industry was announced today by National Recovery Administrator Hugh S. Johnson.

Mr. Ordeman will serve during the pleasure of the Administrator.

Fiber Products Laboratories Open

DANVERS, Mass., June 25, 1934—The Fiber Products Laboratories which commenced operations here June 11, is devoted exclusively to development and research work on pulp, paper, board and sizing problems. Prominent among the personnel of the laboratories are Robert H. McGeah, who is in charge of the Wood Preservation Division, and Henry P. Shopneck, in charge of the Paper Products Division. Mr. Shopneck was formerly research chemist and mill engineer for Kojsurrogat, the Fibrous Products Division of the Shoe and Leather Industry of Russia. The laboratory is fully equipped with beaters, a paper machine, refining equipment, cookers, calenders, etc., and has a fine analytical division.

Miscellaneous Markets

Office of the PAPER TRADE JOURNAL,
Tuesday, July 3, 1934.

BLANC FIXE.—The position of the blanc fixe market is practically unchanged. Prices are holding to schedule. The pulp is quoted at from $42.50 to $45 per ton, in bulk; while the powder is selling at from 3½ to 3¾ cents per pound, in barrels, at works.

BLEACHING POWDER.—Demand for bleaching powder is moderately active. The contract movement is fairly regular. Prices are generally maintained at formerly quoted levels. Bleaching powder is offered at from $1.90 to $2.15 per 100 pounds, in drums, at works.

CASEIN.—The casein market continues firm. Domestic standard ground is quoted at 12½ cents and finely ground at 13 cents per pound. Argentine standard ground is selling at 12¾ cents and finely ground at 13½ cents per pound, all in bags, car lot quantities.

CAUSTIC SODA.—Steadiness prevails in the caustic soda market although the prevailing demand is irregular. Solid caustic soda is quoted at from $2.60 to $3.10; while the flake and ground are selling at from $3 to $3.05 per 100 pounds, in large drums, at works.

CHINA CLAY.—The china clay market is displaying strength. Prices are holding to schedule without difficulty. Imported china clay is quoted at from $13.50 to $21 per ton, ship side; while domestic paper making clay is selling at from $5 to $12 per ton, at works.

CHLORINE.—Trading in the chlorine market is brisk. The contract movement is well up to average. Prices remain steady and unchanged. Chlorine is quoted at from $2 to $2.25 per 100 pounds, in tanks, or multi-unit cars, in ton lots, or over, at works.

ROSIN.—The rosin market is softer. The grades of gum rosin used in the paper mills are now quoted at from $5.35 to $5.50 per 280 pounds, in barrels, at works. Wood rosin is selling at $4.40 per 280 pounds, in barrels, at southern shipping points.

SALT CAKE.—Conditions in the salt cake market are satisfactory. Prices remain unchanged. Salt cake is quoted at from $12 to $14, and chrome salt cake at from $12 to $12.50 per ton, at works. Imported salt cake is selling at from $12 to $12.50 per ton, on dock.

SODA ASH.—The soda ash market is exhibiting a strong undertone. Contract shipments are moving in good volume. Prices are steady. Quotations on soda ash, in car lots, at works, are as follows: in bulk, $1.10; in bags, $1.40; and in barrels, $1.50.

STARCH.—No further changes have been reported in the starch market. Supplies are going forward at a fairly steady pace. Prices are firmer. Special paper making starch is quoted at $3.01 per 100 pounds, in bags; and at $3.28 per 100 pounds, in barrels.

SULPHATE OF ALUMINA.—The sulphate of alumina market is fairly buoyant. Prices are holding to schedule. Commercial grades are quoted at from $1.35 to $1.50; while iron free is selling at from $1.90 to $2.05 per 100 pounds, in barrels, at works.

SULPHUR.—The sulphur market continues steady. Sulphur is quoted at $18 per long ton on orders of 1,000 tons, or over, on yearly contracts; and at $20 per ton on any smaller quantity over that period. On spot and near by car loads, the quotation is $21 per ton.

TALC.—Business in the talc market is fairly active. The contract movement is seasonal. Prices are steady. Domestic talc is quoted at from $16 to $18 per ton, in bulk, at eastern mines; while imported talc is selling at from $23 to $30 per ton, on deck.

Market Quotations

Paper

(F. o. b. Mill)

Ledgers	6.50	@	—
Bonds	6.00	@	—
Index	6.00	@	—
Writings—			
Extra Superfine	6.50	@	—
Superfine	6.25	@	—
Tub sized	5.75	@	—
Engine sized	5.50	@	—
Book, Cased—			
S. & S. C.	5.35	@	5.75
S. & S. C. Litho	5.60	@	6.00
M. F.	5.10	@	5.50
Coated and Enamel	5.90	@	6.55
Coated Litho	5.90	@	6.55
Tissues—Per Ream—			
White No. 1	.82½	@	.85
White No. 2	.67½	@	—
Anti-Tarnish M. G. only	1.00	@	—
Colored	.85	@	—
Kraft	.70	@	—
Manila	.67½	@	.70
Manila—			
No. 1 Jute	9.00	@	9.25
No. 2 Jute	7.75	@	8.50
No. 1 Wood	4.00	@	5.25
No. 2 Wood	3.50	@	4.00
Butchers	4.00	@	4.50
Fibre Papers—			
No. 1 Fibre	4.25	@	5.50
No. 2 Fibre	4.00	@	4.75
Common Bogus	1.50	@	3.00
Screenings	2.50	@	3.50
Glassine—			
Bleached	.11	@	—
Unbleached	.09	@	—

(The following Quotations are Delivered New York)

News, per ton—			
Roll, contract	40.00	@	—
Rolls, spot	40.00	@	—
Sheets	45.00	@	—
Kraft—			
No. 1 Domestic	4.75	@	5.00
No. 2 Domestic	3.87½	@	—
Southern	3.87½	@	—
Boards—per ton—			
News	45.00	@	50.00
Chip	42.50	@	47.50
Sgl. Mla. Ll. Chip	52.50	@	55.00
Jute Lined Chip	52.50	@	55.00
White Patent Coated	65.00	@	70.00
Binders Boards	68.00	@	72.00

Mechanical Pulp

(On Dock, Atlantic Ports)

No. 1 Imported—			
Moist	27.00	@	29.00
Dry	27.00	@	30.00

(F.o.b. Mill)

No. 1 Domestic and Canadian	24.00	@	29.00

Chemical Pulp

(On Dock, Atlantic, Gulf and West Coast Ports)

Bleached Sulphite (Domestic and Foreign)—			
Division 1	2.85	@	—*
Division 2	2.80	@	—*
Division 3	2.75	@	—*
Prime Qualities—			
Class 1. All Prime Easy Bleaching	2.25	@	—*
Other Than Easy Bleaching—			
Class 2. Higher Than Standard	2.20	@	—*
Class 3. Standard	2.15	@	—*
Class 4. Lower than Standard	2.10	@	—

(On Dock, Atlantic Ports)

Kraft No. 1	1.85	@	1.90
Kraft No. 2	1.60	@	1.70

(F.o.b. Pulp Mill)

Kraft Domestic	1.60	@	2.75

(Delivered)

Soda Bleached	2.50	@	—

*Add 60 Cents per short ton, dock charges, for Albany; $2.00 for Lake Ports East and $3.00 for Lake Ports West of Mackinac Straits.

Domestic Rags

New Rags

(Prices to Mill f. o. b. N. Y.)

Shirt Cuttings—			
New White, No. 1.	6.50	@	7.00
Silesias No. 1	4.25	@	4.50
New Unbleached	6.75	@	7.25
New Soft Blacks	3.00	@	3.25
Blue Overall	4.00	@	4.25
Fancy	2.50	@	2.75
Washables	1.75	@	2.00
Mixed Khaki Cuttings	3.00	@	3.25
O. D. Khaki Cuttings	3.75	@	4.00
Men's Corduroy	1.50	@	1.75
New Mixed Blacks	2.50	@	2.75

Old Rags

White, No. 1—			
Repacked	3.00	@	3.50
Miscellaneous	2.75	@	3.25
White, No. 2—			
Repacked	1.75	@	2.25
Miscellaneous	1.50	@	1.75
Thirds and Blues—			
Repacked	1.50	@	1.75
Miscellaneous	1.25	@	1.50
Black Stockings	2.50	@	3.00
Roofing Rags—			
No. 1	1.10	@	1.25
No. 2	.80	@	.85
No. 3	.70	@	.75
No. 4	.65	@	.70
No. 5A	.60	@	.65

Foreign Rags

New Rags

New Dark Cuttings	1.60	@	1.70
New Mixed Cuttings	1.75	@	1.85
New Light Silesias	3.75	@	4.00
Light Flannelettes	3.75	@	4.00
Unbleached Cuttings	6.50	@	6.75
New White Cuttings	6.50	@	6.75
New Light Oxfords	3.25	@	3.50
New Light Prints	2.75	@	3.00

Old Rags

No. 1 White Linens	7.50	@	8.00
No. 2 White Linens	6.50	@	7.00
No. 3 White Linens	4.50	@	5.00
No. 4 White Linens	2.25	@	2.50
No. 1 White Cotton	4.25	@	4.75
No. 2 White Cotton	3.25	@	3.75
No. 3 White Cotton	2.50	@	2.75
No. 4 White Cotton	1.90	@	2.15
Extra Light Prints	2.00	@	2.25
Ord. Light Prints	1.75	@	1.85
Med. Light Prints	1.55	@	1.65
Dutch Blue Cottons	1.75	@	1.85
French Blue Linens	2.30	@	2.40
German Blue Linens	2.15	@	2.25
German Blue Cottons	1.70	@	1.80
Checks and Blues	1.30	@	1.40
Linsey Garments	1.40	@	1.60
Dark Cottons	1.00	@	1.10
Old Shopperies	.95	@	1.00
New Shopperies	.90	@	1.00
French Blues	1.70	@	1.80

Old Rope and Bagging

(Prices to Mill f. o. b. N. Y.)

Gunny No. 1—			
Foreign	1.50	@	1.60
Domestic	1.40	@	1.50
Wool Tares, light	1.20	@	1.30
Wool Tares, heavy	1.20	@	1.30
Bright Bagging	1.15	@	1.25
Manila Rope—			
Foreign	2.35	@	2.45
Domestic	2.25	@	2.50
Small Mixed Rope	1.10	@	1.35
New Burlap Cut	2.00	@	2.25
Hessian Jute Threads—			
Foreign	2.60	@	2.75
Domestic	2.80	@	3.00

Old Waste Papers

(F. o. b. New York)

Shavings—			
White Envelope Cuttings	2.70	@	2.80
Ordinary Hard White No. 1	2.15	@	2.25
Hard White No. 2	1.95	@	2.05
Soft White No. 1	1.85	@	1.95
Flat Stock—			
Stitchless	.80	@	.90
Over issue Mag.	.80	@	.90
Solid Flat Book	.65	@	.75
Crumpled No. 1	.60	@	.65
Solid Book Ledger	1.50	@	1.65
Ledger Stock	1.00	@	1.10
New B. B. Chips	.30	@	.35
Manilas—			
New Env. Cut	1.70	@	1.80
New Cuttings	1.35	@	1.45
Print	Nominal		
Bogus Wrapper	.40	@	.50
Container	Nominal		
Old Kraft Machine—			
Compressed bales	1.10	@	1.20
News—			
No. 1 White News	1.00	@	1.10
Strictly Overissue	.65	@	.70
Strictly Folded	.35	@	.45
No. 1 Mixed Paper	.20	@	.25

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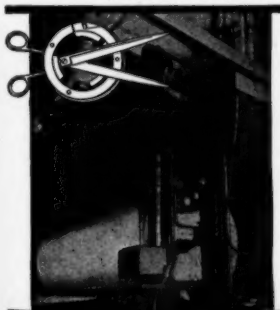

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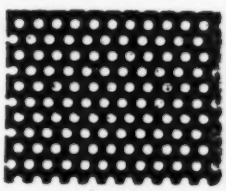

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Twines
(F. o. b. Mill)

Cotton—			
B. C. 18 basis	.30	@	.32
No. 1	.20	@	.22
No. 2	.19	@	.20
No. 3	.17	@	.18
A. Italian 18 basis	.36	@	.37
Finished Jute—			
Dark, 18 basis	.18	@	.20
Light, 18 basis	.20	@	.22
Jute Wrapping, 3-6 Ply—			
No. 1	.15¾	@	.16½
No. 2	.15	@	.16
Tube Rope—			
4-ply and larger	.09¾	@	.09¾
Fine Tube Rope—			
4-ply	.11¾	@	.11¾
3-ply	.14¾	@	.14¾
2-ply	.14¾	@	.14¾
Paper Makers Twine	.08¾	@	.13¾
Box Twine, 2-3 ply	.14¾	@	.14¾
White Hemp	.13¾	@	.16¾
Java Sisal—			
No. 1 Basis	.11½	@	—
No. 2 Basis	.10½	@	—
New Zealand Sisal	.11½	@	—
Sisal Lath Yarn—			
No. 1	.13½	@	.15½
No. 2	.11½	@	.13½
Manila Twine	.24½	@	.29½

CHICAGO

Paper
(F. o. b. Mill)

Rag Bond	.12	@	.50
Water Marked Sulphite Bond	.06¾	@	.11
Sulphite Bond	.05½	@	.11
Superfine Writing	.10	@	.40
No. 1 M. F. Book	.06½	@	.07¾
No. 2 M. F. Book	.05¾	@	.06¾
No. 1 S.&S.C. Book	.06¾	@	.07¾
No. 2 S.&S.C. Book	.05¾	@	.06½
Coated Book	.07	@	.12
Coated Label	.07	@	.08½
No. 1 Manila	.04¾	@	.05½
No. 1 Fibre	.04¾	@	.05¾
No. 2 Manila	.04¼	@	.04¾
Butcher's Manila	.03¾	@	.03¾
No. 1 Kraft	4.75	@	5.00
Southern Kraft	3.88	@	4.25
No. 2 Kraft	3.88	@	4.25
Wood Tag Boards	.04¼	@	.05½
Sulphite Screenings	.03	@	.03¾
Manila Tissue	.05¾	@	.07
White Tissue	.07	@	.09

(Delivered Central Territory)

News, per ton—			
Rolls, contract	41.00	@	—
Sheets, open	46.00	@	51.00
Boards, per ton—			
Plain Chip	46.50	@	—
Solid News	50.00	@	—
Manila Lined Chip	55.00	@	—
Patent coated	65.00	@	—
Container Lined—			
85 Test, per 1000 sq. ft.			1.70
100 Test, per 1000 sq. ft.			1.85

Old Papers
(F. o. b. Chicago)

Shavings—			
No. 1 White Envelope cuttings	1.70	@	2.00
No. 1 Hard White	1.40	@	1.65
No. 1 Soft White	1.25	@	1.50
Ledger & Writings	.70	@	.80
Solid Books	.60	@	.70
Blanks	1.00	@	1.05
Kraffs	.80	@	.90
New Kraft Cuts	1.20	@	1.30
Manila Env. Cuts	1.25	@	1.30
Ex. No. 1 Manila	.90	@	1.00
Print Manila	.50	@	.55
Overissue News	.60	@	.70
Old Newspapers—			
No. 1	.50	@	.55
Mixed Papers—			
No. 1	.30	@	.35
Roonng Stocks—			
No. 1	30.00	@	—
No. 2	28.00	@	—

PHILADELPHIA

Paper
(Delivered Philadelphia)

Bonds	.05-9/10	@	.38
Ledgers	.06 9/10	@	.40
Writings—			
Superfine	.10	@	.18
Extra Fine	.15	@	.26
Fine	.15	@	.26
Fine, No. 2	.10	@	.25
Fine No. 3	.05	@	.06
Book, M. F.	.05¼	@	.06½
Book, S. S. & C.	.05	@	.07½
Book, Coated	.06½	@	.09
Coated Lithograph	.06¾	@	.08½
Label	.07	@	.11
No. 1 Jute Manila	6.25	@	—
Manila Sul., No. 1	5.25	@	—
Manila No. 2	3.00	@	—
No. 1 Kraft	5.00	@	—
Southern Kraft	4.75	@	—
Common Bogus	.03	@	.04½
News Print Rolls	46.00	@	55.00
Straw Board	40.00	@	45.00
News Board	50.00	@	—
Chip Board	45.00	@	—
Wood Pulp Board	70.00	@	85.00
Binder Boards—			
No. 1, per ton	75.00	@	80.00
No. 2, per ton	70.00	@	75.00
Carload lots	65.00	@	70.00
Tarred Felts—			
Regular	52.25	@	54.25
Slaters (per roll)	.84	@	.94
Best Tarred, 1-ply (per roll)	1.95	@	2.10
Best Tarred, 2-ply (per roll)	1.50	@	1.60
Best Tarred, 3-ply	2.00	@	2.25

Domestic Rags (New)
(Price to Mill, f. o. b. Phila.)

Shirt Cuttings—			
New White, No. 1	.03½	@	.04
New White, No. 2	.02½	@	.03
Light Silesias	.02½	@	.03
Silesias, No. 1	.03	@	.03½
Black Silesias, soft	.02½	@	.03
New Unbleached	.05	@	.05½
Washable, No. 1	.01½	@	.02
Blue Overall	.03½	@	.04
Cottons—According to grades—			
Washable, No. 2	.02½	@	.03
New Blue	.01½	@	.03
Fancy	.01½	@	.03
New Light Seconds	.01½	@	.02
New Dark Seconds	1.50	@	1.75
Khaki Cuttings—			
No. 1 O.D.	.03	@	.04
No. 2 Mixed	.03	@	.04
Corduroy	.02	@	.03
New Canvas	.03½	@	.04½
New Black Mixed	.02½	@	.03½

Domestic Rags (Old)

White No. 1—			
Repacked	2.50	@	3.50
Miscellaneous	1.75	@	2.25
M. G.	3.00	@	3.75
Thirds and Blues—			
Miscellaneous	1.00	@	1.50
Repacked	1.50	@	2.00
Black Stockings (Export)	2.00	@	3.50
Roofing Stock—			
Foreign No. 1	.50	@	.75
Repacked	.70	@	.85

Bagging
(F. o. b. Phila.)

Gunny, No. 1—			
Foreign	1.25	@	1.50
Domestic	1.50	@	1.75
Manila Rope	2.00	@	2.25
Sisal Rope	1.25	@	1.50
Mixed Rope	1.00	@	1.10
Scrap Burlaps—			
No. 1	1.25	@	1.50
No. 2	.80	@	1.00
Wool Tares, heavy	2.75	@	—
Mixed Strings	1.15	@	1.25
No. 1 New Light Burlap	2.25	@	2.50
New Burlap Cuttings	2.00	@	2.25

Old Papers
(F. o. b. Phila.)

Shavings—			
No. 1 Hard White	2.25	@	2.30
No. 2 Hard White	1.90	@	2.00
No. 1 Soft White	1.80	@	1.85
No. 2 Soft White	1.25	@	1.50
No. 1 Mixed	—	@	.75
No. 2 Mixed	—	@	.50
Solid Ledger Stock	1.50	@	1.60
Writing Paper	1.10	@	1.20
No. 1 Books, heavy	—	@	.70
No. 2 Books, light	—	@	.50
No. 1 New Manila	—	@	1.40
No. 1 Old Manila	—	@	.70
Print Manila	—	@	.60
Container Manila	—	@	.50
Old Kraft	1.00	@	1.10
Common Paper	—	@	.20
No. 1 Mixed Paper	—	@	.25
Straw Board Chip	—	@	.30
Binders Board Chip	—	@	.30
Corrugated Board	—	@	.50
Overissue News	—	@	.50
Old Newspapers	—	@	.30

BOSTON

Paper
(F. o. b. Mill)

Ledgers—			
Sulphite	.06	@	12½
Rag Content	.12	@	30
All Rag	.36	@	52½
Bonds—			
Sulphite	.07¼	@	.11
Rag Content	.12	@	.30
All Rag	.36	@	.65
Writings	.06½	@	.20
Superfines	.11	@	.31
Book, Super	.06	@	.09
Book, M. F.	.05½	@	.08½
Book, Coated	.08½	@	.18
Coated Litho	.09	@	.12
Label	.09½	@	.15
Jute Manila No. 1	.11	@	.13
Manila, Sul. No. 1	.04¾	@	.06¾
Manila, Sul. No 2	.03¾	@	.04½
No. 1 Kraft	.04¾	@	.05
No. 2 Kraft	.03¾	@	.04½
(F. o. b. Boston)			
Southern Kraft	.03¾	@	.04½
(F. o. b. destination in carload lots, f. o. b. mill in less than carload lots.)			
Common Bogus	.02	@	.02¾
(Delivered New England points)			
News Print, rolls	44.50	@	—
Straw Board, rolls	.009	@	35.00
Straw Board in Sheets, basis 35s to 70s	—	@	40.00
Filled News Board	45.00	@	50.00
Chip Board	42.50	@	47.00
Chip Board (Creasing)	45.00	@	—
Single Manila Lined Chip	52.50	@	62.50
Single White, Patent Coated News Board—Bender	62.50	@	72.50
Wood Pulp Board	70.00	@	75.00
Binder Boards	62.00	@	75.00

Old Papers
(F. o. b. Boston)

Shavings—			
No. 1 Hard White	$2.20	@	2.35
No. 1 Soft White	1.75	@	2.00
No. 2 Mixed	.75	@	.80
Solid Ledger Books	1.75	@	—
Overissue Ledger Stock	1.15	@	1.30
Mixed Ledgers	.95	@	1.05
No. 1 Books, heavy	.85	@	.95
No. 1 Books, light	.65	@	.75
Crumpled Stitchless Book Stock	.50	@	.60
Manila Env. Cuttings	1.25	@	1.30
No. 1 Old Manila	.75	@	.80
White Blank News	.90	@	1.00
No. 1 Kraft	.95	@	1.05
Manila	.70	@	.75
No. 1 Mixed Papers	.15	@	.20
Print Manila	.40	@	.45
Overissue News	.45	@	.50
Old Newspapers	.30	@	.35
Box Board Chips	.32½	@	.35
Corrugated Boxes	.30	@	.32½
Screening Wrappers	.50	@	.60

Bagging
(F. o. b. Boston)

Manila Rope—			
Foreign	2.00	@	2.12½
Domestic	2.25	@	2.37½
Transmission Rope	—	@	1.25
Mixed Strings	—	@	.30
Jute Rope	1.50	@	1.60
Jute Carpet Threads	.65	@	.70
Gunny No. 1—			
Foreign	1.40	@	1.45
Domestic	1.12½	@	1.17½
Bleachery Burlap	3.00	@	3.25
Scrap Burlap	1.10	@	1.15
Scrap Sisal	.90	@	1.10
Scrap Sisal for shredding	1.00	@	1.25
Wool Tares, heavy	1.25	@	1.30
New Burlap Cuttings	1.25	@	1.50
Australian Wool Pouches	2.25	@	2.50
Heavy Baling Bagging	1.40	@	1.50
Paper Mill Bagging	.90	@	1.10
Bagging No. 2	.50	@	.55

Domestic Rags (New)
(F. o. b. Boston)

Shirt Cuttings—			
New Light Prints	.01¾	@	.02
New White No. 1	.06	@	.06½
New White No. 2	.04	@	.04½
Silesias No. 1	.04	@	.05
New Black Silesias	.02½	@	.03
New Unbleached	.06½	@	.07
Blue Cheviot	—	@	4.00
Fancy	—	@	.04½
Washable	.02¼	@	—
Cottons—According to grades—			
Blue Overalls	—	@	.03¾
New Black, soft	.04	@	.04
Khaki Cuttings	.03	@	.03¼
O. D. Khaki	.02¾	@	.03
Corduroy	.01¾	@	.02
New Canvas	—	@	.05
B.V.D. Cuttings	—	@	.06¾

Domestic Rags (Old)
(F. o. b. Boston)

Canvas	.04½	@	
White No. 1—			
Repacked	—	@	3.00
Miscellaneous	2.50	@	2.75
White No. 2—			
Repacked	2.00	@	2.75
Miscellaneous	2.00	@	2.25
Twos and Blues	1.25	@	1.50
Thirds and Blues			
Repacked	2.00	@	2.75
Miscellaneous	2.00	@	2.25
Black Stockings	2.25	@	2.50
Roofing Stock			
No. 1	.80	@	.85
No. 2	.65	@	.70
No. 3	.55	@	.60

Foreign Rags
(F. o. b. Boston)

Dark Cottons	.85	@	.95
New White Shirt Cuttings	5.50	@	6.00
Dutch Blues	2.00	@	2.50
New Checks & Blues	2.50	@	3.00
Old Fustians	1.55	@	1.60
Old Linsey Garments	1.25	@	1.35

TORONTO

Paper
(F. o. b. Mill)

Bond—			
No. 1 Sulphite	.10¾	@	—
No. 2 Sulphite	.08½	@	—
No. 1 Colored	.10¾	@	—
No. 2 Colored	.09	@	.10
Ledgers (sulphite)			
Ledgers, No. 1	.34½	@	—
Ledgers, No. 2	.25½	@	—
Writing	.09	@	.09½
Book—			
No. 1 M. F. (Carloads)	6.20	@	—
No. 3 M. F. (Carloads)	5.70	@	—
No. 4 M. F. (carloads)	4.75	@	—
No. 1 S. C. (carloads)	6.65	@	—
No. 3 S. C. (carloads)	6.20	@	—
No. 4 S. C. (carloads)	5.20	@	—
No. 1 Coated and Litho	12.00	@	—
No. 2 Coated and Litho	10.50	@	—
No. 3 Coated and Litho	9.50	@	—
Coated tinted	14.00	@	—
Wrapping—			
Rag Brown	4.25	@	—
White Wrap	2.22½	@	—
"B" Manila	4.75	@	—
No. 1 Manila	5.25	@	—
Fiber	5.25	@	—
Kraft, M. F.	5.75	@	—
Kraft No. 2	5.25	@	—

(F.O.B. Cars Toronto)

News, per ton—			
Rolls (contract)	45.50	@	—
Sheets	50.50	@	—

Pulp
(F. o. b. Mill)

Ground Wood	18.00	@	20.00
Sulphite easy bleaching	40.00	@	—
Sulphite, news grade	38.00	@	—
Sulphite, bleached	50.00	@	55.00
Sulphate	50.00	@	—

Old Waste Paper
(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut	2.00	@	2.30
Soft White	1.60	@	1.90
White Blk. News	1.25	@	1.40
Book and Ledger—			
Flat Magazine and Book Stock (old)	.90	@	1.00
Light and Crumpled Book Stock	.80	@	.90
Ledgers and Writings	1.00	@	1.05
Manilas—			
New Manila Cut	1.25	@	1.50
Printed Manilas	.70	@	.80
Kraft	1.25	@	1.50
News and Scrap—			
Strictly Overissue	.80	@	—
Strictly Folded	.60	@	—
No. 1 Mixed Paper	.50	@	—

Domestic Rags
(Price to mills, f. o. b. Toronto)

No. 1 White Shirt Cuttings	.06	@	.06¼
Fancy Shirt Cuttings	.02¼	@	.02¾

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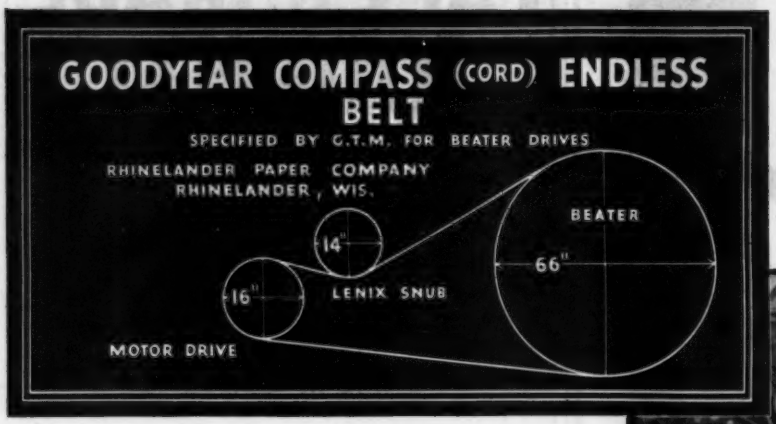
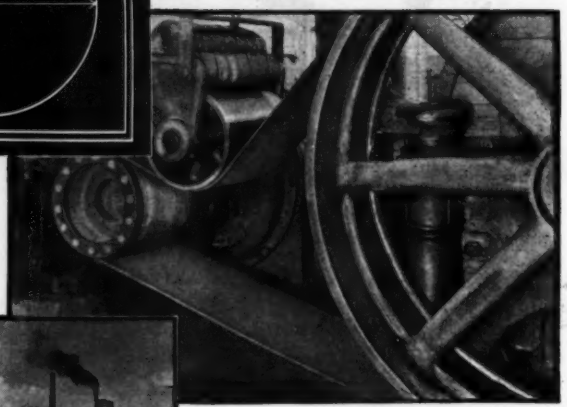
DOUBLE BEST FORMER RECORD



G.T.M.-SPECIFIED BELTS WIN "SHOW DOWN" ON BUSY PAPER MILL'S BEATER DRIVES



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Have run continuously more than 3 years; previous belts averaged only 19 months!

FEW, if any, industrial jobs are harder on belts than paper mill beater drives — especially in a plant like the Rhinelander Paper Company, Rhinelander, Wisconsin, that has been operating at capacity all through the depression to supply the demand for their famous grease-proof glazed and waxed papers.

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G.T.M. RECOMMENDS COMPASS (*CORD*) ENDLESS

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